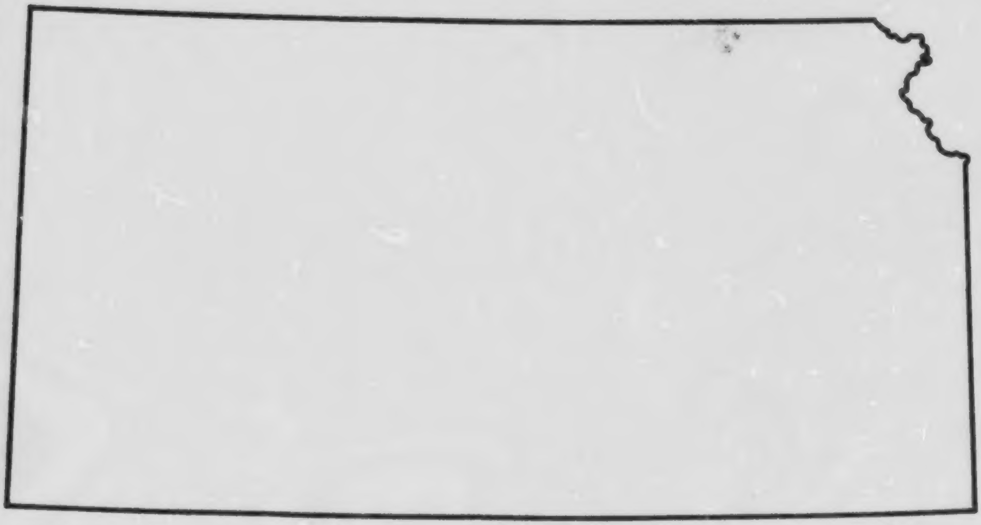
# Water Resources Data
# Kansas
## Water Year 1984

ORIGINAL



U.S. GEOLOGICAL SURVEY WATER DATA REPORT KS-84-1
Prepared in cooperation with the State of Kansas
and with other agencies

# CALENDAR FOR WATER YEAR 1984

## 1983

### OCTOBER

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## 1984

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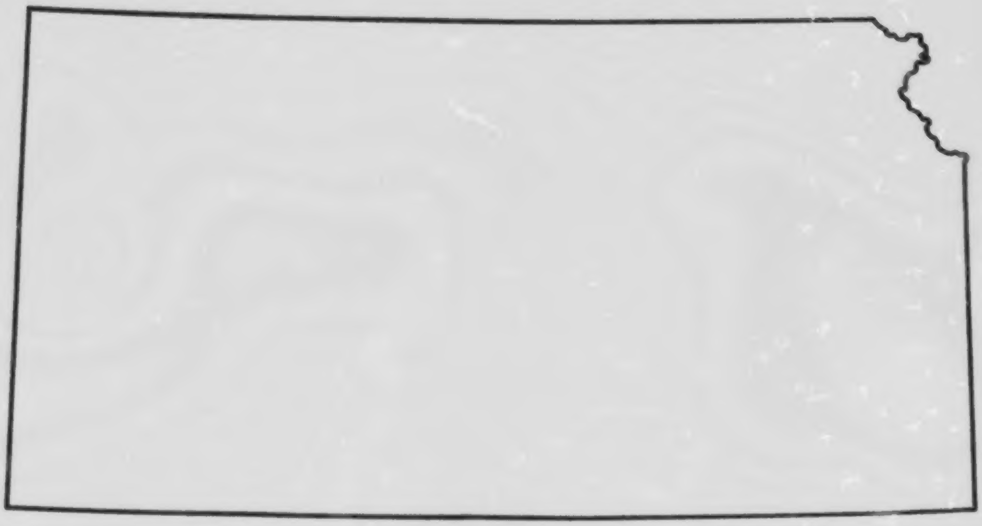
U.S. DEPARTMENT OF THE INTERIOR
March 3 1849

# Water Resources Data Kansas

# Water Year 1984

by C.O. Geiger, D.L. Lacock, L.R. Shelton, M.L. Penny, and C.E. Merry



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT KS-84-1
Prepared in cooperation with the State of Kansas
and with other agencies

I

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in Kansas write to:

District Chief, Water Resources Division
U.S. Geological Survey
1950 Constant Avenue - Campus West
Lawrence, Kansas 66046

1985

# PREFACE

This volume of the annual hydrologic data report of Kansas is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each state, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and water quality provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines.

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50272-101

| | | | |
|---|---|---|---|
| REPORT DOCUMENTATION PAGE | 1. REPORT NO.<br>USGS/WRD/HD-85/270 | 2. | 3. Recipient's Accession No. |

4. Title and Subtitle
Water Resources Data, Kansas,
Water Year 1984

5. Report Date
September 1985

6.

7. Author(s) C. O. Geiger, D. L. Lacock, L. R. Shelton, M. L. Penny, and C. E. Merry

8. Performing Organization Rept. No.
USGS-WDR-KS-84-1

9. Performing Organization Name and Address
U.S. Geological Survey, Water Resources Division
1950 Constant Avenue - Campus West
Lawrence, Kansas 66046

10. Project/Task/Work Unit No.

11. Contract(C) or Grant(G) No.
(C)
(G)

12. Sponsoring Organization Name and Address
U.S. Geological Survey, Water Resources Division
1950 Constant Avenue - Campus West
Lawrence, Kansas 66046

13. Type of Report & Period Covered
Annual - Oct. 1, 1983 to Sept. 30, 1984

14.

15. Supplementary Notes
Prepared in cooperation with the State of Kansas and other agencies.

16. Abstract (Limit: 200 words)

Water resources data for the 1984 water year for Kansas consist of records of stage, discharge, and water quality of streams; elevation, contents, and water quality of lakes or reservoirs; and water levels and water quality of ground-water wells. This report contains records for water discharge at 141 gaging stations; elevation and contents at 24 lakes or reservoirs; water quality at 50 gaging stations; and water levels at 436 observation wells and water quality at 231 wells. Also included are data for 91 high-flow, 9 low-flow, and 2 flood hydrograph partial-record stations; and 2 chemical quality of precipitation stations. Miscellaneous water-temperature data were collected at 151 measuring sites, and miscellaneous water-quality data were collected at 85 sampling sites. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Kansas.

17. Document Analysis a. Descriptors

*Kansas, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses.

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

| | | |
|---|---|---|
| 18. Availability Statement No restriction on distribution.<br>This report may be purchased from: National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161 | 19. Security Class (This Report)<br>UNCLASSIFIED | 21. No. of Pages<br>500 |
| | 20. Security Class (This Page)<br>UNCLASSIFIED | 22. Price |

(See ANSI-Z39.18) See Instructions on Reverse OPTIONAL FORM 272 (4-77)
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[ Letters after station name designate type of data: (d) discharge, (c) chemical, (m) microbiological, (s) sediment, (e) elevation ]

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## INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of Kansas each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - Kansas."

This report contains records for discharge at 141 complete-record streamflow-gaging stations; elevation and contents at 24 lakes or reservoirs; water-quality records at 50 complete-record streamflow-gaging stations, and 231 wells; and water levels at 436 observation wells. Also included are data for 91 high-flow partial-record streamflow-gaging stations and 9 low-flow partial-record streamflow-gaging stations. Locations of complete-record streamflow-gaging stations, 1984 water year, are shown in figure 1 (see pages 18-19). Locations of partial-record streamflow-gaging stations, 1984 water year, are shown in figure 2 (see pages 20-21). Locations of water-quality streamflow-gaging stations, 1984 water year, are shown in figure 3 (see pages 22-23). Locations of ground-water level stations, 1984 water year, are shown in figure 4 (see pages 24-25). Locations of ground-water-quality stations, 1984 water year, are shown in figure 5 (see pages 26-27).

This series of annual reports for Kansas began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Kansas were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir elevation and contents, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 6 and 7. For the 1961 through 1970 water years, the data were published in two 5-year reports, 1961-65 and 1966-70. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above-mentioned Water-Supply Papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report KS-84-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (913) 864-4321.

## COOPERATION

The U.S. Geological Survey and agencies of the State of Kansas have had cooperative agreements for the collection of water-resources records since 1895. Organizations that assisted in collecting the data in this report through cooperative agreement with the Survey are: Kansas Water Office, J. F. Harkins, Director; Kansas Department of Health and Environment, Division of Environment, J. F. Aiken, Jr., Director, succeeded by A. S. Abramson; Kansas Geological Survey, W. W. Hambleton, State Geologist and Director; Kansas Department of Transportation, E. E. Wilkinson, Bridge Engineer, succeeded by K. D. Hurst; Kansas State Board of Agriculture, Division of Water Resources, D. L. Pope, Chief Engineer; City of Hays, Ken Carter, City Manager; City of Wichita, Department of Operations and Maintenance, Flood Control and Landfill Division, Gene Rath, Director.

Assistance with funds or services was given by the U.S. Army Corps of Engineers in collecting records for 58 continuous-record streamflow-gaging stations and 17 lakes or reservoirs, 13 high-flow partial-record streamflow-gaging stations, and 1 water-quality streamflow-gaging station; and by the U.S. Department of the Interior, Bureau of Reclamation, in collecting continuous record of elevation for 1 reservoir.

Organizations that supplied data are acknowledged in station descriptions.

## SUMMARY OF HYDROLOGIC CONDITIONS

### Surface Water

Large variations in streamflow characterize hydrologic conditions in Kansas. Average annual precipitation exceeds 40 inches in the extreme east, and average annual runoff exceeds 10 inches in the same area. Also in the east, stream channels are deeply incised in wide alluvial flood plains, and streamflow generally is perennial. In the extreme west, however, average annual precipitation is less than 16 inches, and average annual runoff is less than 0.1 inch in the same area. In western Kansas streams generally have shallow, ill-defined channels, and streamflow generally is ephemeral.

Precipitation data from monthly reports of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, for selected areas in Kansas are shown in table 1 (see page 31). With the exception of north-central and south-central Kansas, precipitation for the 1984 water year was greater than normal. However, the water year ended (July-September) with precipitation significantly less than normal throughout the entire State. This resulted in less than median runoff for the months of August and September.

The location of selected streamflow-gaging stations and a comparison of long-term median monthly and annual mean discharges at these stations to the 1984 water year monthly and annual mean discharges are shown in figure 6 (see pages 28-29). These stations were selected to represent natural-flow conditions at representative locations within Kansas. The long-term 7-day, 2-year low flow for these same stations is compared to the minimum 7-day average flow (7-day low flow) for the 1984 water year in table 2 (see page 32).

Streamflow was greater than median during the 1984 water year in eastern Kansas and less than median in western Kansas. Extensive urban flooding occurred in the Kansas City area on June 9. As a result of this flood, peaks of record were recorded on the Blue River near Stanley (10-year record) and on Indian Creek at Overland Park (21-year record). Peaks of record also were recorded at streamflow-gaging stations on Soldier Creek near Circleville (20-year record) and on the Delaware River below Perry Dam (15-year record).

Irrigation reservoirs in central and western Kansas remained well below irrigation-pool elevations during the 1984 water year. Reservoirs not used for irrigation in eastern and central Kansas generally were at or near conservation-pool elevations by the end of the water year.

### Surface-Water Quality

Concentrations of most chemical constituents, determined from water samples collected during the 1984 water year, did not exceed the extremes for the period of record at streamflow-gaging stations where the streams were sampled. However, concentrations of dissolved selenium in excess of the drinking-water standard of 10 micrograms per liter, established by the U.S. Environmental Protection Agency, were determined to be 34 micrograms per liter on February 2, and 21 micrograms per liter on May 3 in the Arkansas River near Coolidge.

Interpretive investigations involving the collection of surface-water-quality data are currently underway on 19 water-supply lakes in eastern Kansas. The purpose of these investigations is to determine the relationship between concentrations of chemical constituents and physical characteristics of the lakes and their drainage areas.

### Ground Water

Ground-water-level changes that occurred during 1984 were determined from a water-level monitoring network of 1,457 observation wells measured in January 1985 by various Federal, State, and local agencies. During the year, record low-water levels were measured at 110 observation wells, whereas record high-water levels were measured at only 28 wells.

In northwestern Kansas (area north of the Smoky Hill River), the average water level declined 0.1 ft during the year. For 1966-84, water levels declined an average of 0.5 ft per year. In west-central Kansas (area between the Smoky Hill River and the Scott-Finney County line), the average water level declined 0.1 ft during the year. For 1966-84, water levels declined an average of 1.5 ft per year. In southwestern Kansas (area south of the Scott-Finney County line), the average water level declined 0.5 ft during the year. For 1966-84, water levels declined an average of 1.5 ft per year. In south-central Kansas (Big Bend Prairie south of the Arkansas River), the average water level declined 0.3 ft during the year. For 1974-84, water levels declined an average of 0.6 ft per year.

Because annual measurements of water-level change usually are affected by temporary conditions, developing trends are more accurately identified from long-term records. In general, water levels in western Kansas have shown an annual decline of about 1.6 ft less during the past 5 years (1980-84) than during the previous 5 years (1975-79).

### Ground-Water Quality

A ground-water-quality monitoring network of 231 wells was sampled and the samples analyzed for various chemical constituents during the 1984 water year. Concentrations of dissolved nitrogen, iron, and selenium locally exceeded drinking-water standard.

Dissolved-nitrogen concentrations, nitrite plus nitrate, in excess of the drinking-water standard of 10 milligrams per liter, established by the U.S. Environmental Protection Agency, were detected in samples from 22 ground-water-supply wells at various locations. The largest concentration, 41 milligrams per liter, was detected from a well in Barber County.

Dissolved-iron concentrations in excess of the drinking-water criteria of 300 micrograms per liter, as suggested by the U.S. Environmental Protection Agency, were detected in 21 samples from ground-water-supply wells at various locations. The largest concentration, 8,200 micrograms per liter, was detected from a well in Rooks County.

Dissolved-selenium concentrations in excess of the drinking-water standard of 10 micrograms per liter were detected in samples from six ground-water-supply wells. The largest concentration, 30 micrograms per liter, was detected from a well in Jewell County.

Interpretive investigations, involving the collection of ground-water-quality data, are currently underway in the High Plains aquifer. The purpose of these investigations is to relate land use to ground-water quality.

## SPECIAL NETWORKS AND PROGRAMS

NATIONAL HYDROLOGIC BENCH-MARK STATION is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

NATIONAL STREAM QUALITY ACCOUNTING NETWORK (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

NATIONAL TRENDS NETWORK (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

## EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1984 water year that began October 1, 1983, and ended September 30, 1984. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, elevation and content data for lakes or reservoirs, water-quality data for surface- and ground-water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figures 3, 4, and 5. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

### Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular streamflow-gaging stations and the "latitude-longitude" system is used for wells and, in Kansas, for streamflow-gaging stations where only miscellaneous measurements are made.

#### Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record streamflow-gaging stations and other stations; therefore, the station number for a partial-record streamflow-gaging station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 07144300, which appears just to the left of the station name, includes the two-digit Part number "07" plus the six-digit downstream-order number "144300." The Part number designates the major river basin; for example, Part "07" is the Mississippi River basin.

### Latitude-Longitude System

The identification numbers for wells and miscellaneous streamflow-gaging sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number, and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. See figure 7 on page 30.

### Records of Elevation and Water Discharge

Records of elevation and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which elevation or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day elevations commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "High-flow partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record and partial-record streamflow-gaging stations for which data are given in this report are shown in figures 1 and 2.

### Data Collection and Computation

The data obtained at a complete-record streamflow-gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationship between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of elevation and of notations regarding factors that may affect the relationship between elevation and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas or lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dam or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relation that daily mean discharges must be estimated from other information such as temperatures and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some streamflow-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relationship of elevation and content. The application of elevation to the elevation-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the elevation-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

## Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake or reservoir content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--This paragraph is used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the lake or reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030; 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton elevation-capacity table when daily contents are given.

The daily table for streamflow-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Data collected at partial-record streamflow-gaging stations follow the information for continuous-record streamflow-gaging sites. Data for partial-record streamflow-gaging stations are presented in two tables. The first is a table of annual maximum stage and discharge at high-flow stations, and the second is a table of discharge measurements at low-flow stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record streamflow-gaging stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

## Accuracy of the Records

The accuracy of streamflow data depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretations of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 cu ft per sec; to the nearest tenth between 1.0 and 10 cu ft per sec; to whole numbers between 10 and 1,000 cu ft per sec; and to three significant figures for more than 1,000 cu ft per sec. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents or reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated.

### Other Records Available

Precipitation data that is collected by the U.S. Geological Survey and State agencies are not published in the present report. The Kansas District operated many digital recorders (15-minute-punch interval) to collect rainfall data. The sites operated during the 1984 water year are shown in table 5 (see page 34). Locations of rainfall stations, 1984 water year, are shown in figure 8 (see page 30).

The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of sites as well as an index of records of discharge collected by other agencies but not published by the Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the Kansas District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

## Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near streamflow-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

### Classification of records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing- or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 4.

### Arrangement of Records

Water-quality records collected at a continuous-record streamflow-gaging station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a continuous-record streamflow-gaging station is not available or where the water quality differs significantly from that at the nearby streamflow-gaging station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

### On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed on p. 17 of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Kansas District office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

### Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for streamflow-gaging stations. Conversions of degrees Celsius to degrees Fahrenheit are shown in table 6 (see page 34). Water temperatures measured at the time of water-discharge measurements are on file in the District office. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

### Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

### Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratories in Arvada, CO or Doraville, GA. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

### Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the continuous-record streamflow-gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuing-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

### Remark Codes

The following remark codes may appear with the water-quality data in this report:

| PRINTED OUTPUT | REMARK |
|---|---|
| E | Estimated value |
| > | Actual value is known to be greater than the value shown |
| < | Actual value is known to be less than the value shown |
| K | Results based on colony count outside the acceptance range (non-ideal colony count) |
| L | Biological organism count less than 0.5 percent (organism may be observed rather than counted) |
| D | Biological organism count equal to or greater than 15 percent (dominant) |
| & | Biological organism estimated as dominant |

## Records of Ground-Water Levels

Only water-level data from a basic network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in Kansas are shown in figure 4.

Records are obtained through cooperative efforts of many Federal, State, and local agencies for several hundred observations wells throughout Kansas and are placed in computer storage. Information about the availability of the data in the water-level file may be obtained from the District Chief, Kansas District. (See address on back of front page.)

### Data Collection and Computation

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude, and (2) a local number that is provided for local needs. See figure 7 on page 30.

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper right corner of the table. The secondary identification number is the local well number, an alphanumeric number, derived from the township-range location of the well.

Water-level records are obtained from direct measurements with a steel tape or from the graph of a water-stage recorder. The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

### Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data.

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water levels are listed. For wells equipped with recorders, only abbreviated tables are published; generally, only water-levels for every fifth day at 1200 hrs and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table.

## Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that for most sampling sites they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes only slowly; therefore, for most general purposes one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one in concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

### Data Collection and Computation

Ground-water quality data from a network of wells are published in this report. A number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed on a following page. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

### Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

## ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, VA.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, VA 22092

## DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

ACRE-FOOT (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

ALGAE are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

ALGAL GROWTH POTENTIAL (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

AQUIFER is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

ARTESIAN means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

BACTERIA are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

TOTAL COLIFORM BACTERIA are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35 deg C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 deg C 1.0 deg C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

FECAL COLIFORM BACTERIA are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 deg C ± 0.2 deg C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

FECAL STREPTOCOCCAL BACTERIA are bacteria found also in intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35 deg C ± 1.0 deg C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

BED MATERIAL is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

BIOCHEMICAL OXYGEN DEMAND (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

BIOMASS is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

ASH MASS is the mass or amount of residue present after the residue from the dry-mass determination has been ashed in a muffle furnace at a temperature of 500 deg C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter ($g/m^3$), and periphyton and benthic organisms in grams per square meter ($g/m^2$).

DRY MASS refers to the mass of residue present after drying in an oven at 105 deg C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

ORGANIC MASS or volatile mass of the living substance is the difference between the dry mass and the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

WET MASS is the mass of living matter plus contained water.

BOTTOM MATERIAL: See Bed material.

CELLS/VOLUME refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

CHEMICAL OXYGEN DEMAND (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

CHLOROPHYLL refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

CONTENTS is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

CONTROL designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

CONTROL STRUCTURE as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream.

CUBIC FOOT PER SECOND (CFS, cu ft per sec) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

DISCHARGE is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

MEAN DISCHARGE (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

INSTANTANEOUS DISCHARGE is the discharge at a particular instant of time.

DISSOLVED refers to that material in a representative water sample which passes through a 0.45 micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determination of "dissolved" constituents are made on subsamples of the filtrate.

DISSOLVED-SOLIDS CONCENTRATION of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

DRAINAGE AREA of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

DRAINAGE BASIN is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

GAGE HEIGHT (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

GAGING STATION is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

HARDNESS of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

HYDROLOGIC UNIT is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

LAND-SURFACE DATUM (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

MEASURING POINT (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

MICROGRAMS PER GRAM (ug/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

MICROGRAMS PER LITER (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as the mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter.

MILLIGRAMS PER LITER (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by using the factors in table 3 (see page 33). Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture. Sediment concentrations may be converted to parts per million (ppm) by using the factors in table 4 (see page 33).

NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

NATIONAL HYDROLOGIC BENCH-MARK NETWORK (NHBMN) is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions in basins more obviously affected by the activities of man.

NATIONAL STREAM QUALITY ACCOUNTING NETWORK (NASQAN) is nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The NATIONAL TRENDS NETWORK (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

ORGANISM is any living entity.

ORGANISM COUNT/AREA refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meter ($m^2$), acre, or hectare. Periphyton benthic organisms, and macrophytes are expressed in these terms.

ORGANISM COUNT/VOLUME refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

TOTAL ORGANISM COUNT is the total number of organisms collected and enumerated in any particular sample.

PARAMETER CODE is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

PARTIAL-RECORD STATION is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

PARTICLE SIZE is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

PARTICLE-SIZE CLASSIFICATION used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

| Classification | Size (mm) | Method of analysis |
|---|---|---|
| Clay........... | 0.00024 - 0.004 | Sedimentation |
| Silt........... | .004 - .062 | Sedimentation |
| Sand........... | .062 - 2.0 | Sedimentation or sieve |
| Gravel........ | 2.0 - 64.0 | Sieve |

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

PERCENT COMPOSITION is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population in terms of types, numbers, mass, or volume.

PERIPHYTON is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

PESTICIDES are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

PICOCURIE (PC, pCi) is one trillionth ($1 \times 10^{-12}$) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields $3.7 \times 10^{10}$ radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

PLANKTON is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

PHYTOPLANKTON is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

BLUE-GREEN ALGAE are a group of phytoplanton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

DIATOMS are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

GREEN ALGAE have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

ZOOPLANKTON is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

SEDIMENT is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

BED LOAD is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

BED LOAD DISCHARGE (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

SUSPENDED SEDIMENT is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

SUSPENDED-SEDIMENT CONCENTRATION is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

MEAN CONCENTRATION is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

SUSPENDED-SEDIMENT DISCHARGE (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (cu ft per sec) x 0.0027.

SUSPENDED-SEDIMENT LOAD is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

TOTAL-SEDIMENT DISCHARGE (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

TOTAL-SEDIMENT LOAD or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

7-DAY 2-YEAR LOW FLOW (7 $Q_2$) is the discharge at the 2-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

7-DAY 10-YEAR LOW FLOW (7 $Q_{10}$) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

SODIUM-ADSORPTION-RATIO (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

SOLUTE is any substance that is dissolved in water.

SPECIFIC CONDUCTANCE is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 deg C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

STAGE-DISCHARGE RELATION is the relation between gage height (stage) and volume of water, per unit of time, flowing in a channel.

STREAMFLOW is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

SUBSTRATE is the physical surface upon which an organism lives.

NATURAL SUBSTRATE refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

ARTIFICIAL SUBSTRATE is a device that is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton.

SUSPENDED (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

TONS PER ACRE-FOOT indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

TONS PER DAY (T/DAY) is the quantity of substance in solution or suspension that passes a stream section during a 24-hour period.

TOTAL is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results sould be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

TOTAL DISCHARGE is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

WATER YEAR in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year".

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WDR was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

WEIGHTED AVERAGE is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

## PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-seven manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett St., Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple. USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A9. *Measurement of time of travel and dispersion in streams by dye tracing*, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

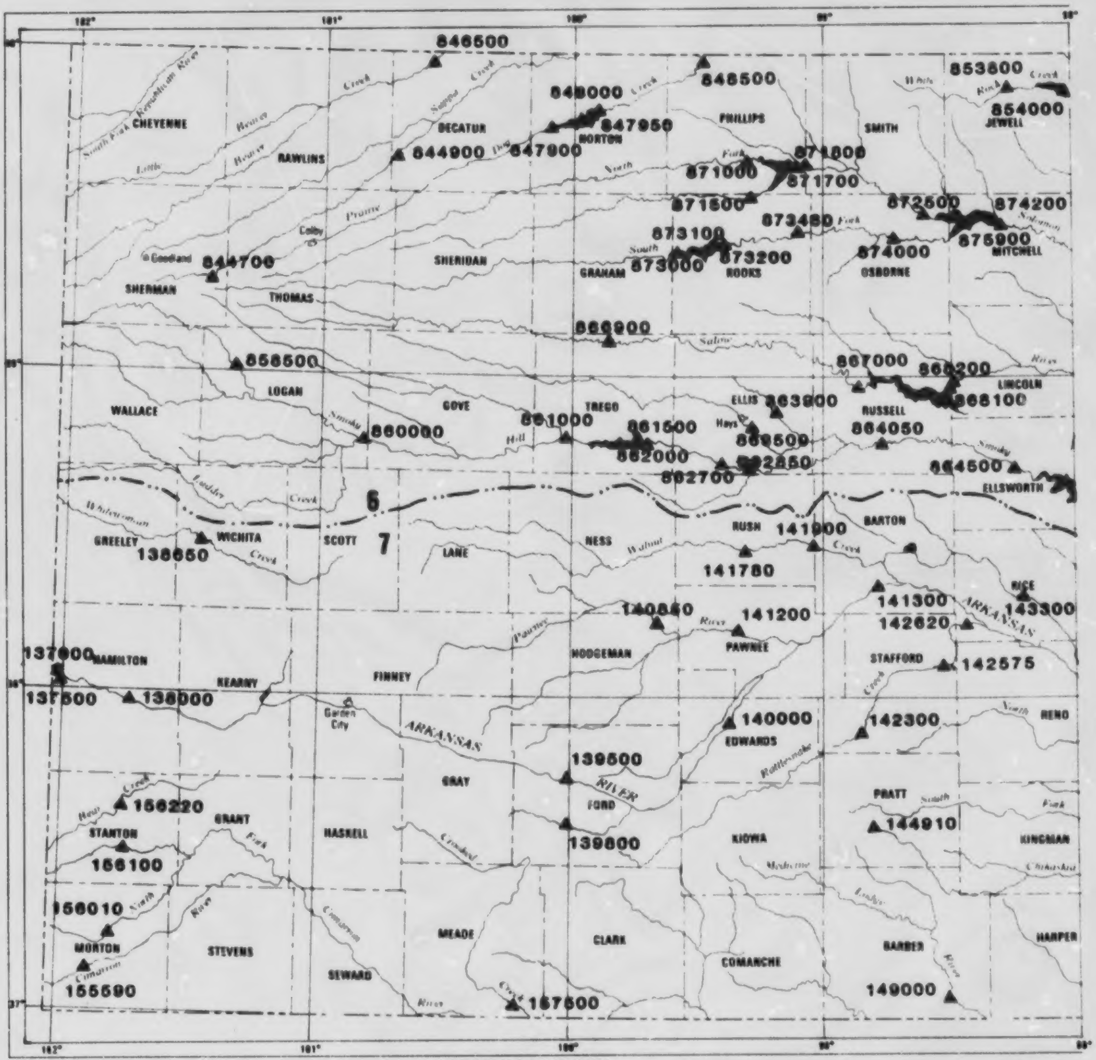
7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels*, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.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Hays
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Smoky Hill
Saline
Solomon
Prairie Dog Creek
Sappa Creek
Beaver
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Ladder Creek
Whitewoman
Walnut Creek
Pawnee
Rattlesnake
Crooked
Cimarron
Medicine
Chikaskia
North Fork
South Fork
Bear Creek
White Rock Creek

EXPLANATION

▲ 172000

Complete-record stations and number

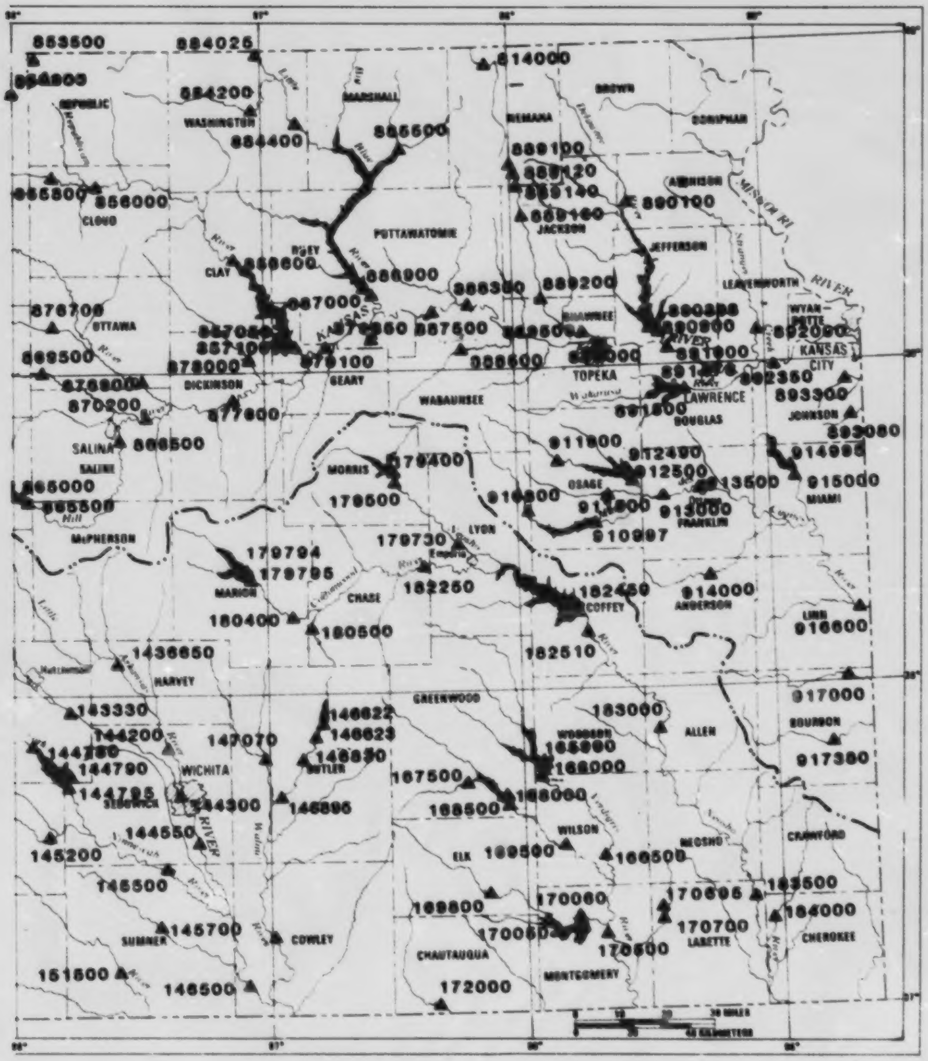
Note: numbers shown are abbreviated versions of the complete numbers given in text

Drainage basins

6 Missouri River basin

7 Arkansas River basin

—— - · · —— Basin boundary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170700
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SUMNER
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COWLEY
CHAUTAUQUA
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170500
151500
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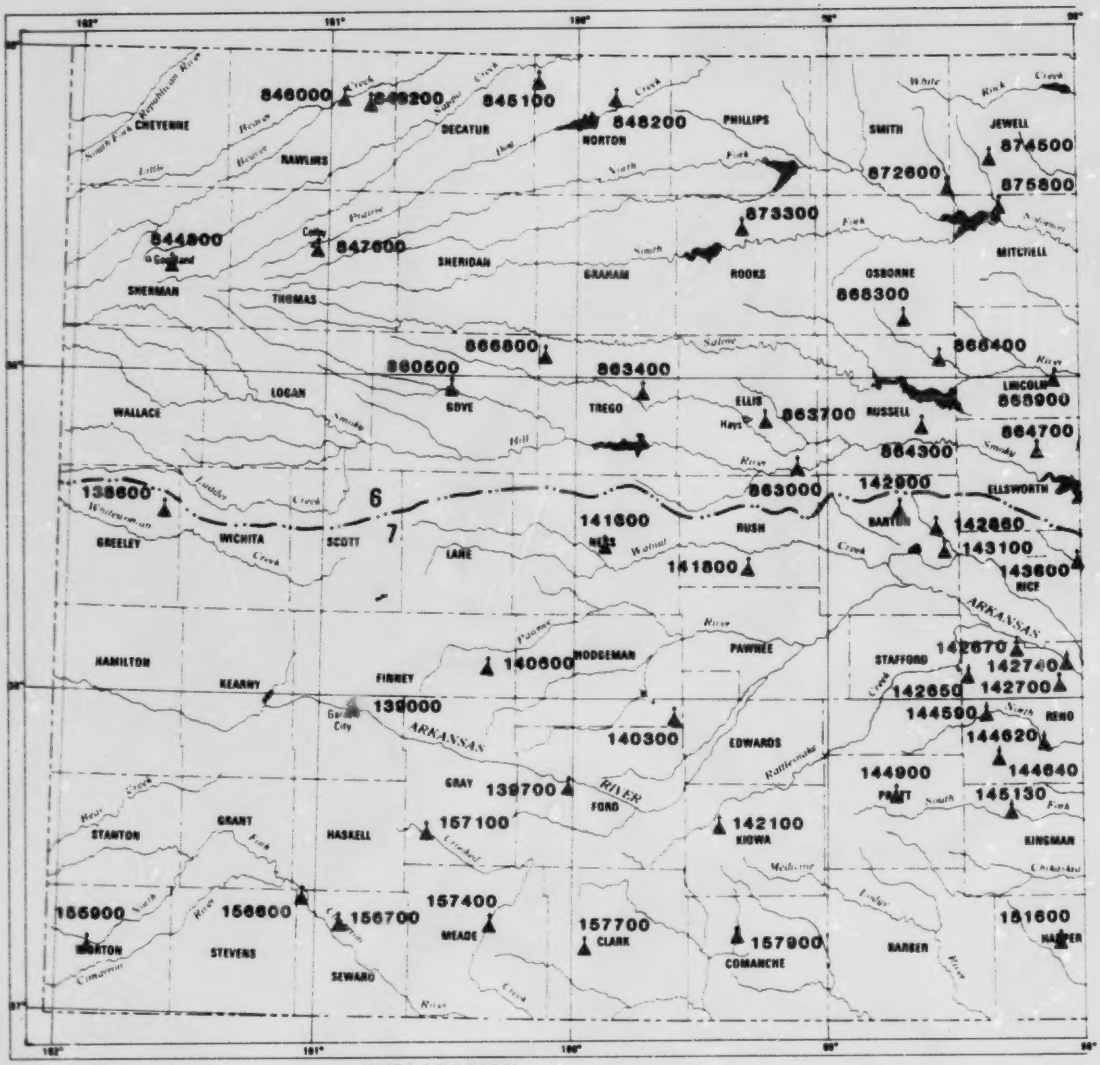
Figure 1.--Map of Kansas showing location of complete-record streamflow-gaging stations, 1984 water year.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BARBER
HARPER
Goodland
Colby
Hays
Garden City
ARKANSAS
ARKANSAS RIVER
South Fork Republican River
White Rock Creek
Sappa Creek
Prairie Dog Creek
Beaver Creek
Little Beaver
North Fork
South Fork
Solomon
Saline River
Smoky Hill River
Ladder Creek
Whitewoman Creek
Walnut Creek
Pawnee River
Rattlesnake Creek
North Fork
South Fork
Crooked Creek
Bear Creek
North Fork Cimarron River
Cimarron River
Medicine Lodge River
Chikaskia

EXPLANATION

813700▲ High-flow station and number

145130▲ Low-flow station and number

Note: numbers shown are abbreviated versions of the complete numbers given in text

Drainage basins

6 Missouri River basin

7 Arkansas River basin

—— · · —— · · —— Basin boundary

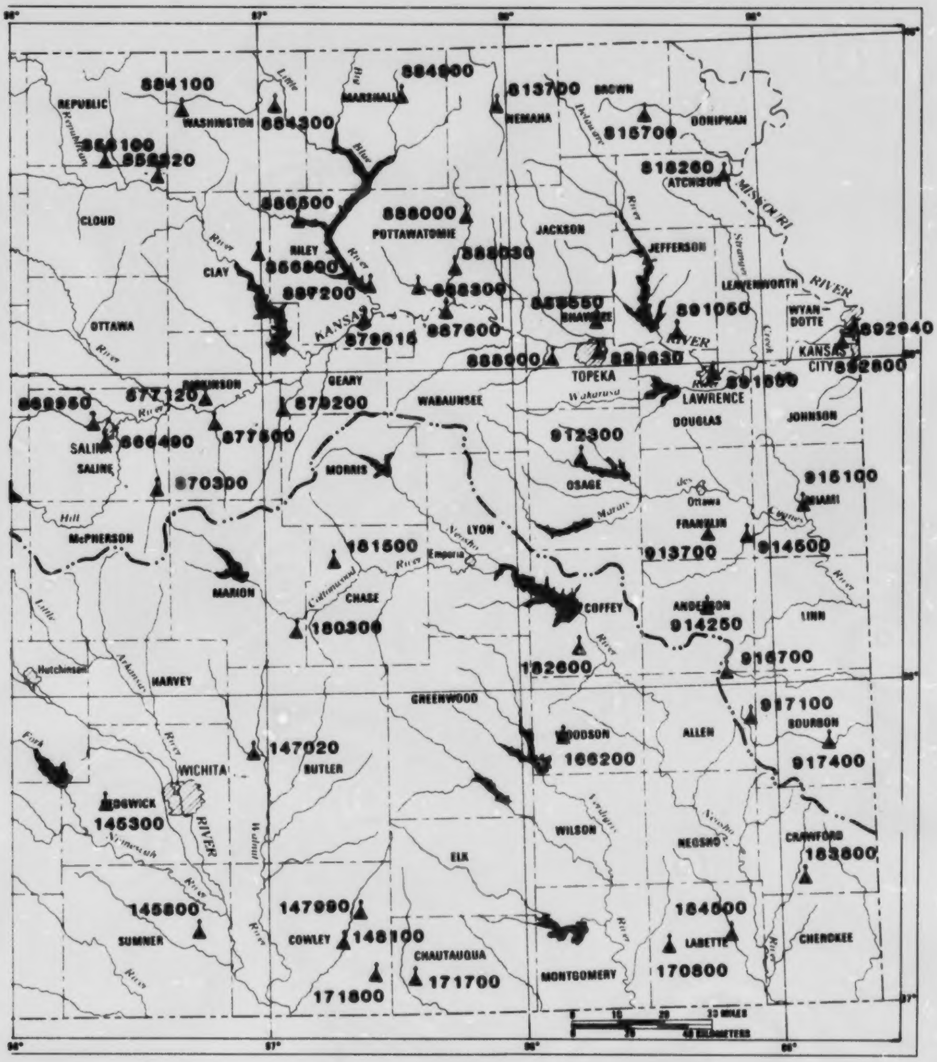
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Figure 2.--Map of Kansas showing location of partial-record streamflow-gaging stations, 1984 water year.

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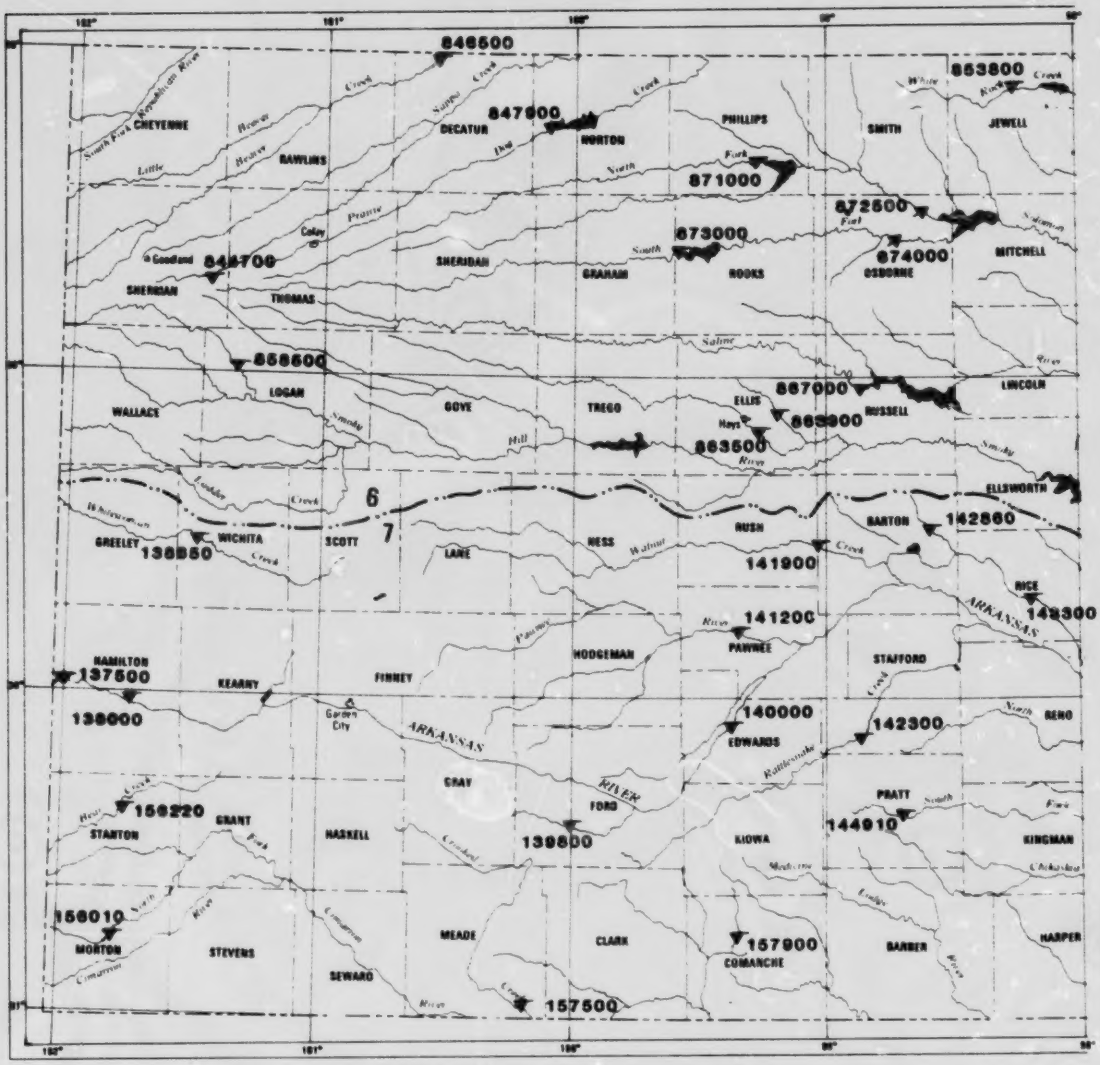
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KINGMAN
MORTON
STEVENS
SEWARD
MEADE
CLARK
COMANCHE
BARBER
HARPER
Goodland
Colby
Hays
Garden City
ARKANSAS RIVER
102°
101°
100°
99°
98°

EXPLANATION

▼ Chemical ▼ Biological ▼ Sediment

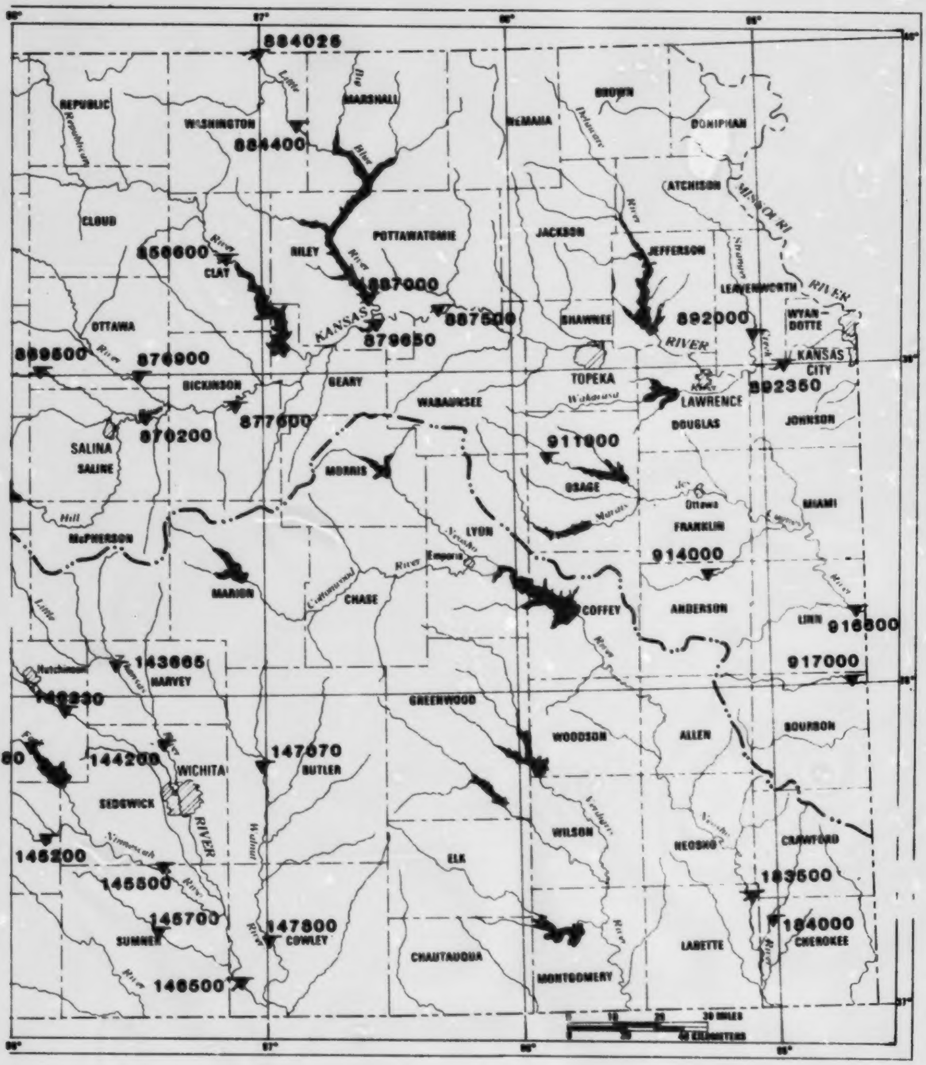
Note: numbers shown are abbreviated versions of the complete numbers given in text

Drainage basin

6 Missouri River basin

7 Arkansas River basin

—··— Basin boundary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FRANKLIN
MIAMI
McPHERSON
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Emporia
MARION
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COWLEY
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MONTGOMERY
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CHEROKEE
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MISSOURI RIVER
Little Blue
Big Blue River
Republican
Delaware River
Stranger Creek
Wakarusa
Marais des Cygnes
Hill
Little Arkansas
Cottonwood River
Neosho River
Verdigris River
Ninnescah River
Walnut River
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39°
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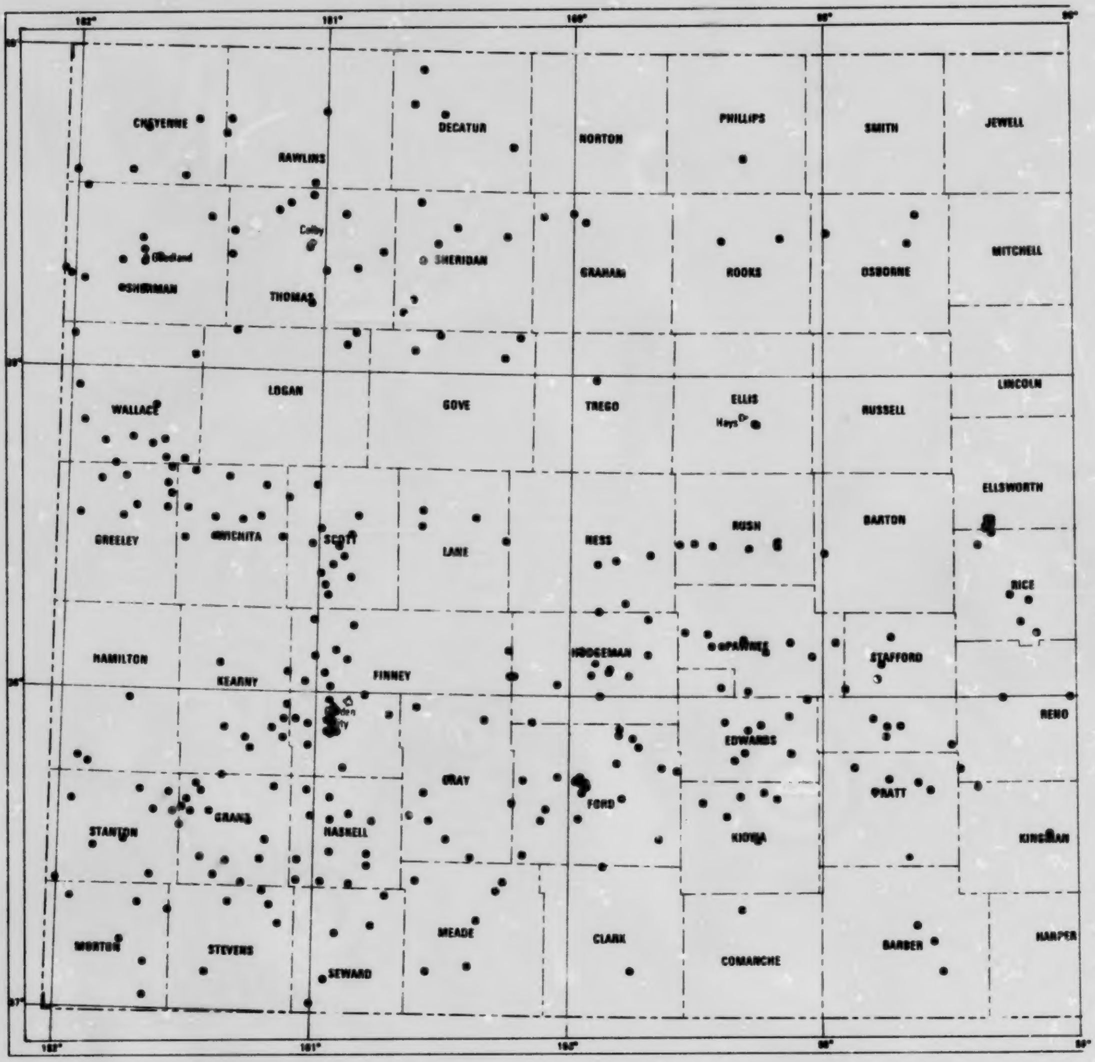
Figure 3.--Map of Kansas showing location of water-quality streamflow-gaging stations, 1984 water year.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BARTON
RICE
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FINNEY
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STAFFORD
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Garden City
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KIOWA
PRATT
KINGMAN
MORTON
STEVENS
SEWARD
MEADE
CLARK
COMANCHE
BARBER
HARPER

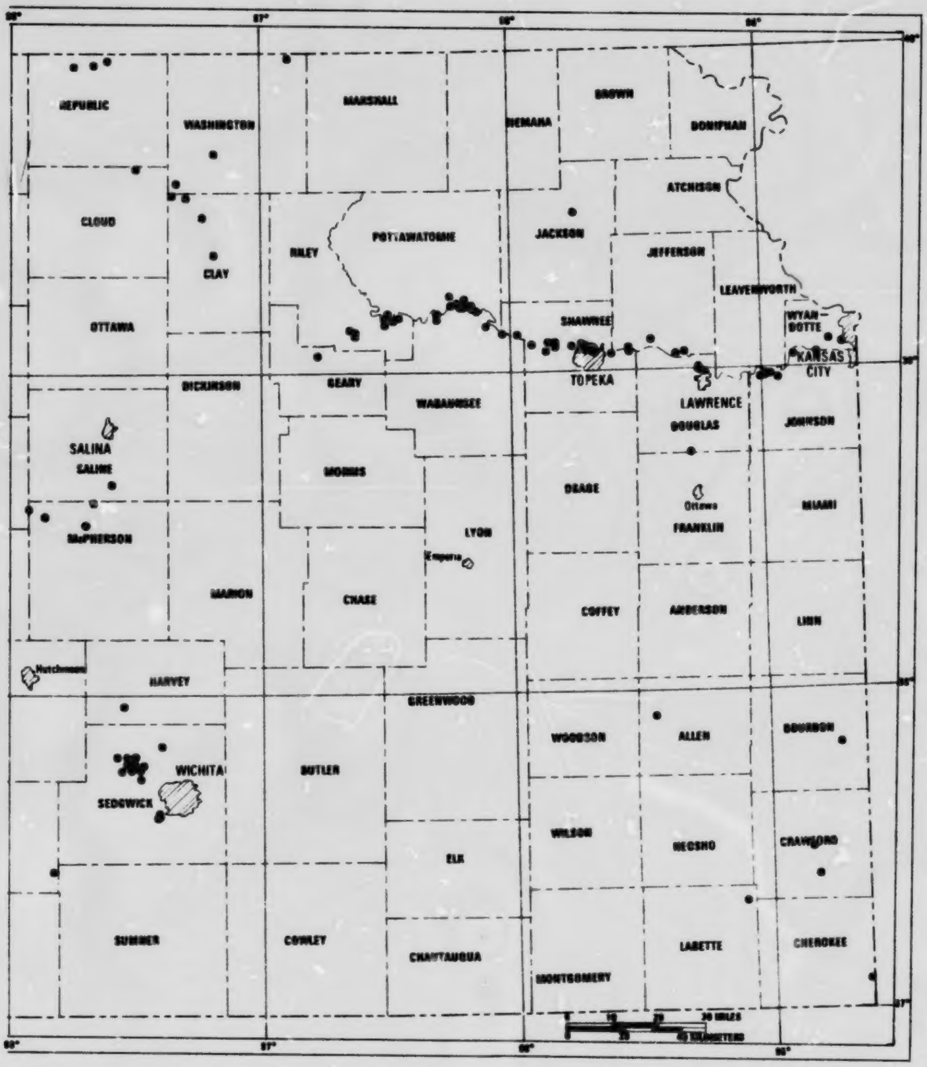
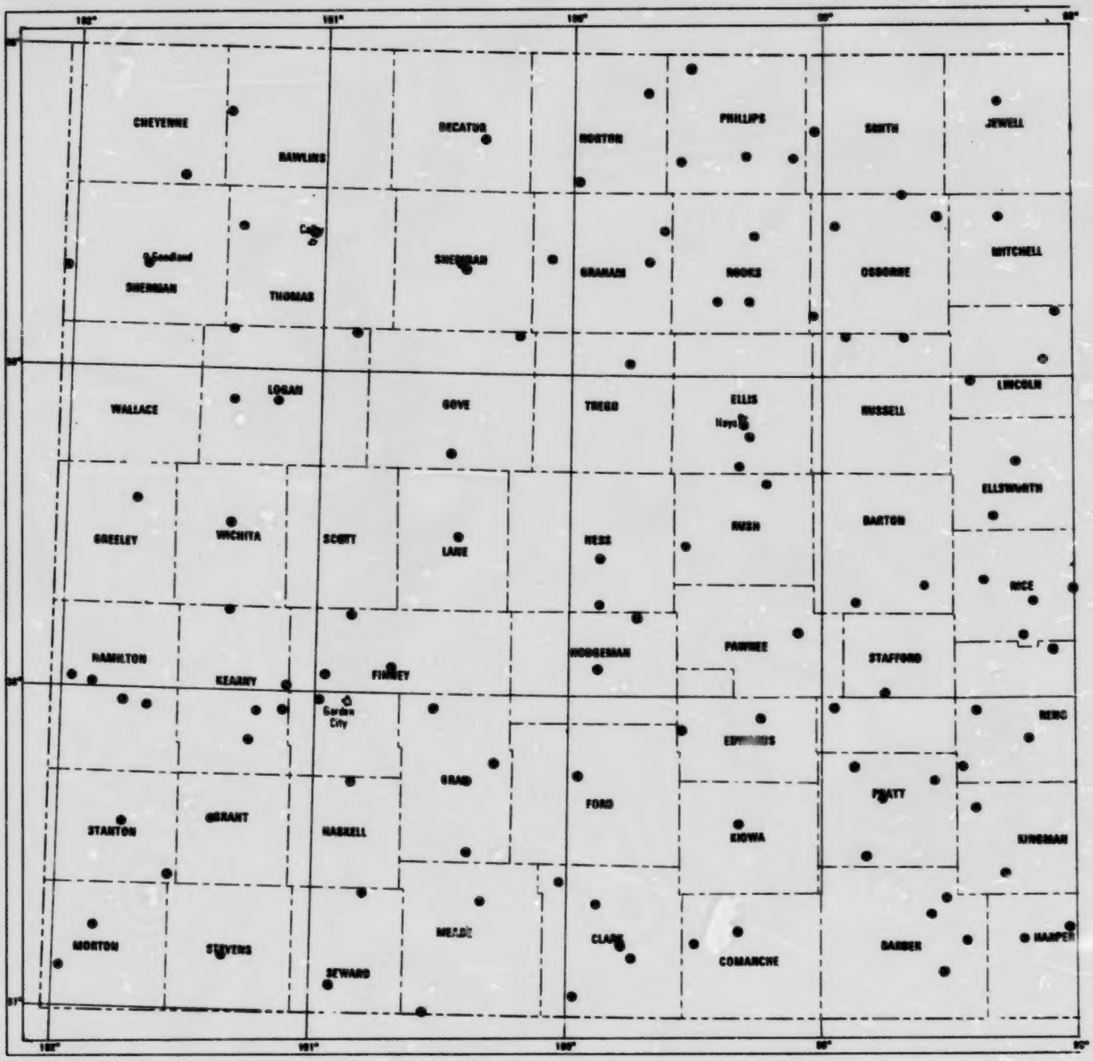

REPUBLIC
WASHINGTON
MARSHALL
NEMAHA
BROWN
DONIPHAN
CLOUD
CLAY
RILEY
POTTAWATOMIE
JACKSON
ATCHISON
JEFFERSON
LEAVENWORTH
WYANDOTTE
KANSAS CITY
OTTAWA
SHAWNEE
TOPEKA
LAWRENCE
DOUGLAS
JOHNSON
DICKINSON
GEARY
WABAUNSEE
SALINA
SALINE
MORRIS
OSAGE
Ottawa
FRANKLIN
MIAMI
McPHERSON
LYON
Emporia
MARION
CHASE
COFFEY
ANDERSON
LINN
Hutchinson
HARVEY
GREENWOOD
WOODSON
ALLEN
BOURBON
WICHITA
SEDGWICK
BUTLER
WILSON
NEOSHO
CRAWFORD
ELK
SUMNER
COWLEY
CHAUTAUQUA
MONTGOMERY
LABETTE
CHEROKEE
30 MILES
40 KILOMETERS

Figure 4.--Map of Kansas showing location of ground-water level stations, 1984 water year.


102°
101°
100°
99°
98°
40°
39°
38°
37°
CHEYENNE
RAWLINS
DECATUR
NORTON
PHILLIPS
SMITH
JEWELL
Goodland
SHERMAN
Colby
THOMAS
SHERIDAN
GRAHAM
ROOKS
OSBORNE
MITCHELL
WALLACE
LOGAN
GOVE
TREGO
ELLIS
Hays
RUSSELL
LINCOLN
ELLSWORTH
GREELEY
WICHITA
SCOTT
LANE
NESS
RUSH
BARTON
RICE
HAMILTON
KEARNY
FINNEY
HODGEMAN
PAWNEE
STAFFORD
Garden City
EDWARDS
RENO
GRAY
FORD
PRATT
STANTON
GRANT
HASKELL
KIOWA
KINGMAN
MORTON
STEVENS
SEWARD
MEADE
CLARK
COMANCHE
BARBER
HARPER

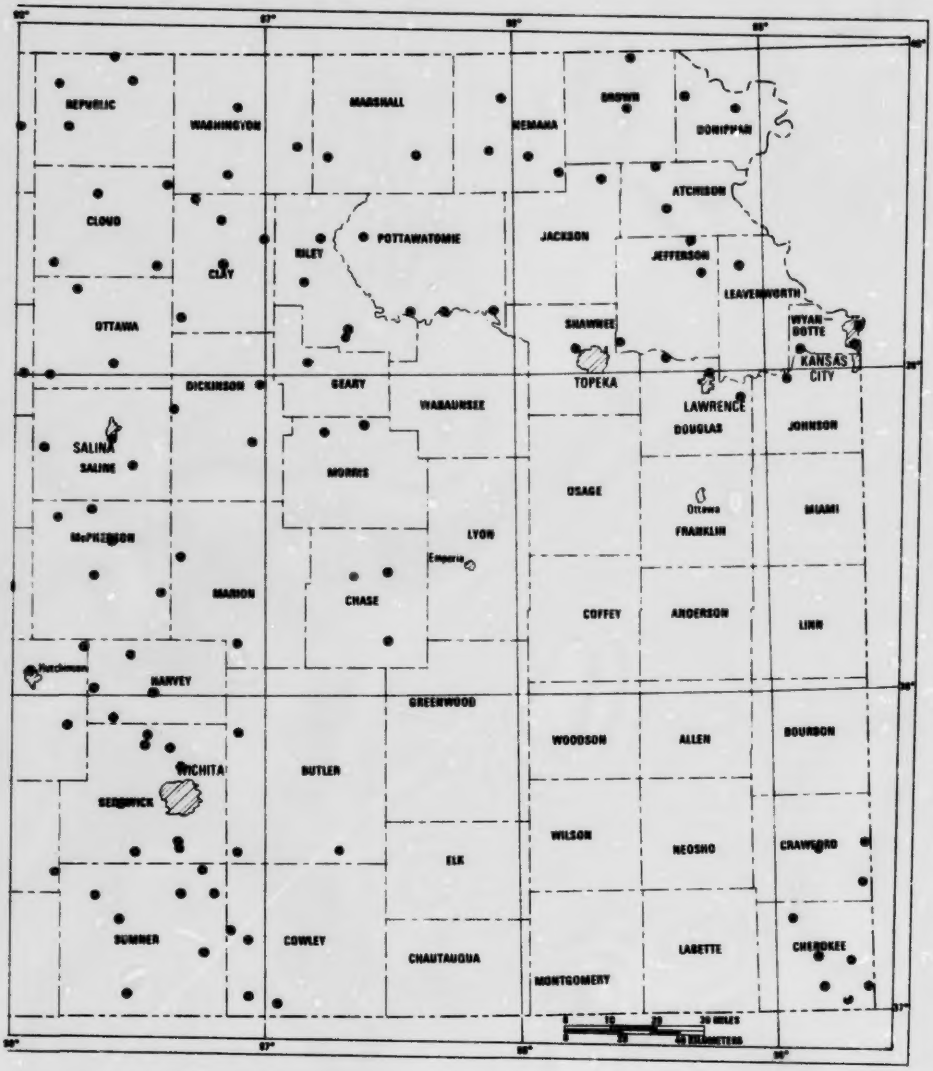
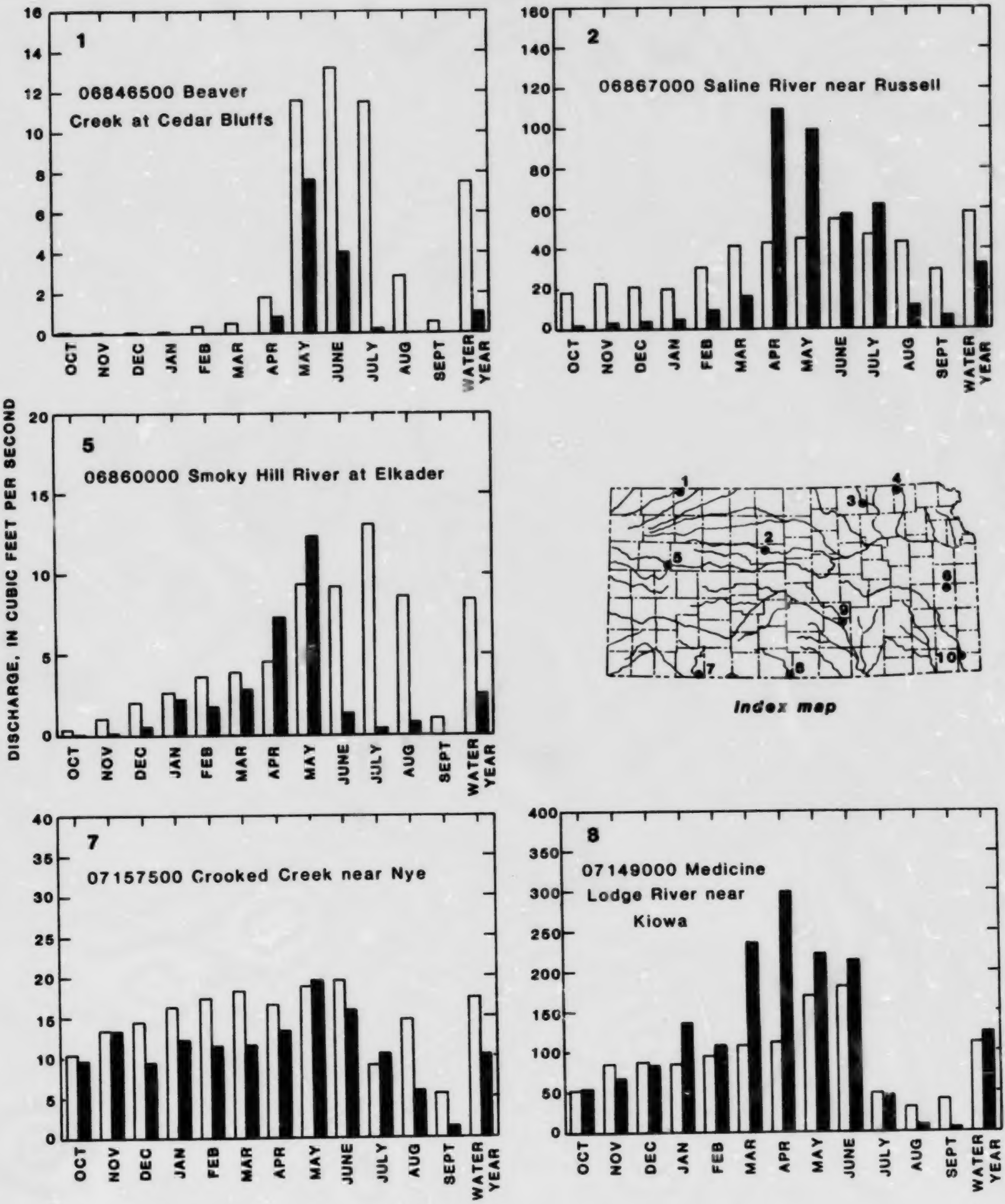

98°
97°
96°
95°
40°
REPUBLIC
WASHINGTON
MARSHALL
NEMAHA
BROWN
DONIPHAN
CLOUD
CLAY
RILEY
POTTAWATOMIE
JACKSON
ATCHISON
JEFFERSON
LEAVENWORTH
OTTAWA
SHAWNEE
WYANDOTTE
KANSAS CITY
TOPEKA
39°
DICKINSON
GEARY
WABAUNSEE
LAWRENCE
DOUGLAS
JOHNSON
SALINA
SALINE
MORRIS
OSAGE
Ottawa
FRANKLIN
MIAMI
McPHERSON
LYON
Emporia
MARION
CHASE
COFFEY
ANDERSON
LINN
Hutchinson
HARVEY
38°
GREENWOOD
WOODSON
ALLEN
BOURBON
WICHITA
BUTLER
SEDGWICK
WILSON
NEOSHO
CRAWFORD
ELK
SUMNER
COWLEY
CHAUTAUQUA
LABETTE
CHEROKEE
MONTGOMERY
37°
0 10 20 30 MILES
0 20 40 KILOMETERS

Figure 5.--Map of Kansas showing location of ground-water-quality stations, 1984 water year.



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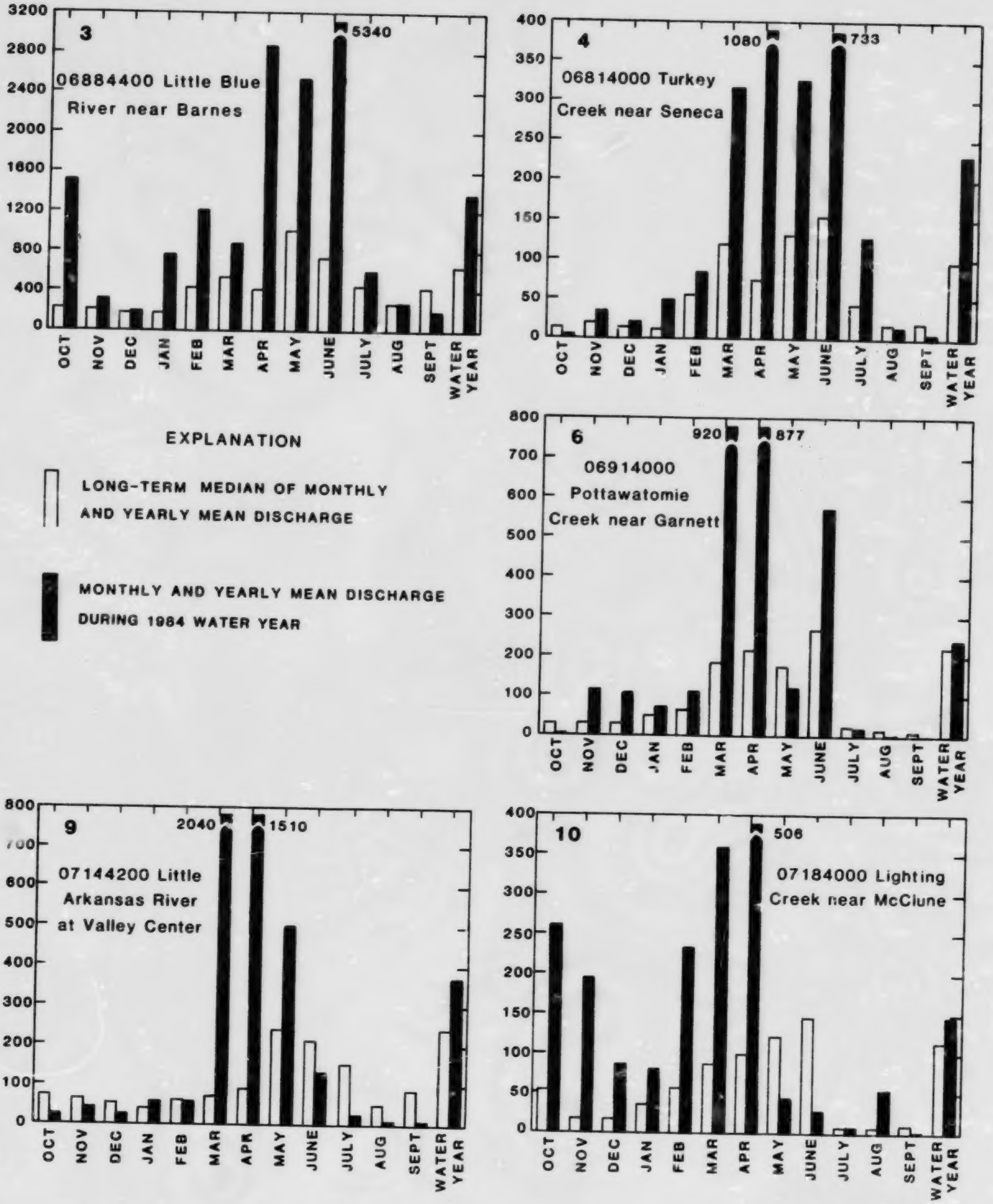

Figure 6.--Comparison of 1984 water year monthly and annual mean discharges to long-term median of monthly and annual mean discharges at selected streamflow-gaging stations.

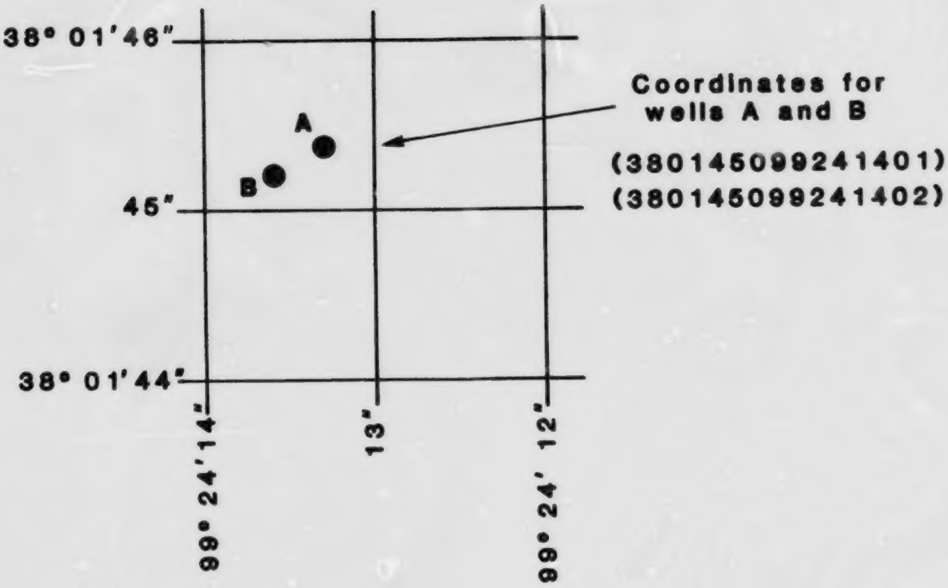
38° 01'46"
45"
38° 01'44"
A
B
Coordinates for wells A and B
(380145099241401)
(380145099241402)
99° 24'14"
13"
99° 24' 12"

Figure 7.--System for numbering wells and miscellaneous sites.

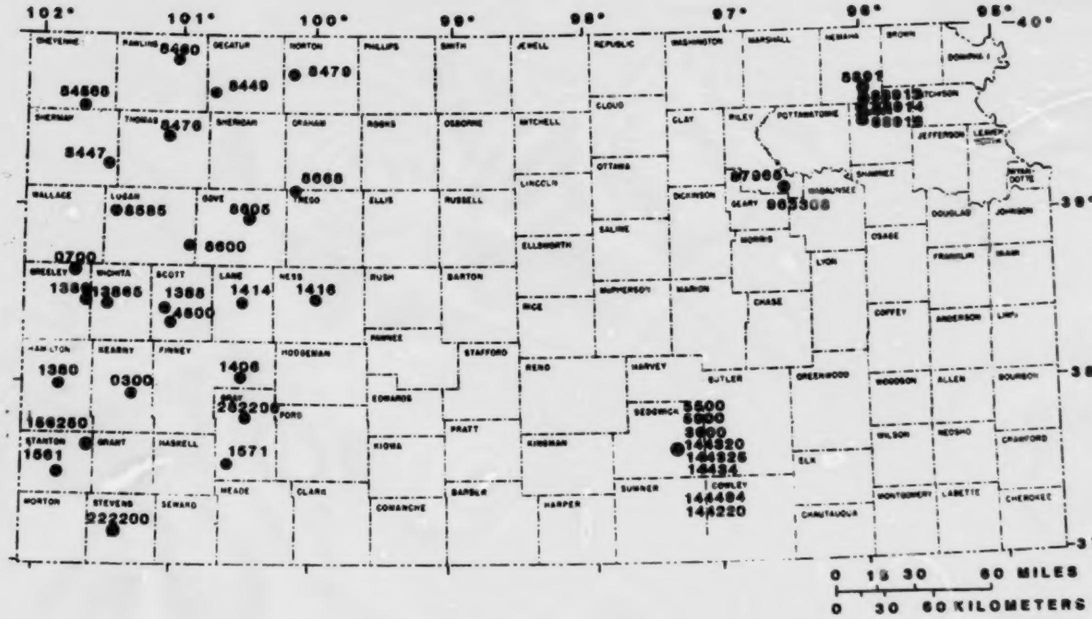
102°
101°
100°
99°
98°
97°
96°
95°
40°
39°
38°
37°
8490
8449
8479
8476
8447
8668
8585
8605
8600
0700
1388
1414
1416
4600
1380
0300
1406
1571
1561
222200
963308
3600
6800
0 15 30 60 MILES
0 30 60 KILOMETERS

Figure 8.--Map of Kansas showing location of recording rainfall stations, 1984 water year.

Table 1.--Precipitation during the 1984 water year and departure from normal
[Data from National Weather Service monthly reports. Values given in inches]

| Areas of State 1/ | October-December |  | January-March |  | April-June |  | July-September |  | Water-year totals |  |
|---|---|---|---|---|---|---|---|---|---|---|
|  | Precipitation | Departure from normal | Precipitation | Departure from normal | Precipitation | Departure from normal | Precipitation | Departure from normal | Precipitation | Departure from normal |
| Northwest | 2.97 | +0.69 | 4.28 | +2.10 | 9.74 | +1.18 | 3.52 | -3.64 | 20.51 | +0.33 |
| North Central | 5.74 | +2.28 | 3.96 | + .81 | 13.14 | +2.94 | 3.27 | -6.22 | 26.11 | - .19 |
| Northeast | 9.46 | +3.90 | 5.53 | +1.46 | 19.66 | +7.24 | 5.89 | -6.39 | 40.54 | +6.21 |
| West Central | 2.75 | + .37 | 4.92 | +2.69 | 8.93 | +1.15 | 4.38 | -2.81 | 20.98 | +1.40 |
| Central | 6.65 | +2.46 | 5.52 | +2.22 | 11.89 | +1.36 | 3.94 | -5.70 | 28.00 | + .34 |
| East Central | 10.27 | +4.18 | 6.59 | +2.08 | 17.31 | +4.61 | 5.01 | -7.07 | 39.18 | +3.80 |
| Southwest | 2.86 | + .61 | 3.13 | +1.11 | 8.39 | + .97 | 4.26 | -2.61 | 18.64 | + .08 |
| South Central | 5.67 | +1.50 | 6.32 | +3.12 | 9.13 | - .86 | 2.92 | -5.98 | 24.04 | -2.24 |
| Southeast | 10.33 | +3.49 | 8.29 | +3.35 | 16.06 | +2.88 | 4.27 | -7.27 | 38.95 | +2.45 |

1/ Areas of the state are shown on figure 9.

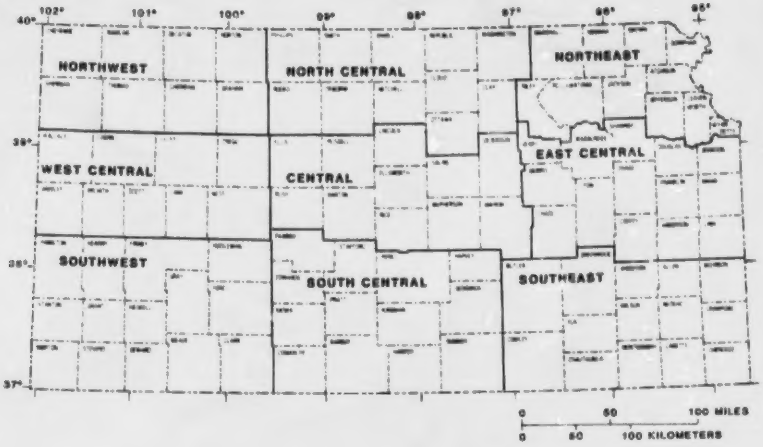
102°
101°
100°
99°
98°
97°
96°
95°
40°
39°
38°
37°
NORTHWEST
NORTH CENTRAL
NORTHEAST
WEST CENTRAL
CENTRAL
EAST CENTRAL
SOUTHWEST
SOUTH CENTRAL
SOUTHEAST
0
50
100 MILES
0
50
100 KILOMETERS

Figure 9.--Divisional areas of the National Weather Service.

Table 2.--Minimum daily discharges and low flows at selected streamflow-gaging stations
[Values are given in cubic feet per second]

| Index Map No. | Station identification number and name 1/ | Period of record: Water years | Period of record: Minimum daily discharge (water year of most recent occurrence) | Period of record: 7-day,2-year low flow | 1984 water year: Minimum daily discharge | 1984 water year: 7-day low flow |
|---|---|---|---|---|---|---|
| 1 | 06846500 Beaver Creek at Cedar Bluffs | 1946-83 | 0<br>(1983) | 0 | 0 | 0 |
| 2 | 06867000 Saline River near Russell | 1946-53,<br>1960-83 | .1<br>(1964) | 9.6 | .21 | .36 |
| 3 | 06884400 Little Blue River near Barnes | 1959-83 | 24<br>(1964) | 120 | 156 | 158 |
| 4 | 06814000 Turkey Creek near Seneca | 1949-83 | 0<br>(1977) | 2.6 | 1.0 | 2.0 |
| 5 | 06860000 Smoky Hill River at Elkader | 1940-83 | 0<br>(1983) | 0 | 0 | 0 |
| 6 | 06914000 Pottawatomie Creek near Garnett | 1940-83 | 0<br>(1983) | .2 | 0 | 0 |
| 7 | 07157500 Crooked Creek near Nye | 1943-83 | 0<br>(1980) | 0 | .19 | .50 |
| 8 | 07149000 Medicine Lodge River near Kiowa | 1938-50,<br>1955,<br>1960-83 | 0<br>(1980) | .5 | 2.2 | 2.7 |
| 9 | 07144200 Little Arkansas River at Valley Center | 1923-83 | 1.1<br>(1957) | 25 | 4.0 | 5.6 |
| 10 | 07184000 Lightning Creek near McCune | 1939-46,<br>1960-83 | 0<br>(1983) | .2 | 0 | 0 |

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1/ Location of stations is shown on index map in figure 6.

Table 3.--Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter.

| Ion | Multiply by | Ion | Multiply by |
|---|---|---|---|
| Aluminum ($Al^{+3}$)*..... | 0.11119 | Iodide ($I^{-1}$)......... | 0.00788 |
| Ammonia as $NH_4^{+1}$..... | .05544 | Iron ($Fe^{+3}$)*......... | .05372 |
| Barium ($Ba^{+2}$)........ | .01456 | Lead ($Pb^{+2}$)*......... | .00965 |
| Bicarbonate ($HCO_3^{-1}$). | .01639 | Lithium ($Li^{+1}$)*...... | .14411 |
| Bromide ($Br^{-1}$)....... | .01251 | Magnesium ($Mg^{+2}$)..... | .08226 |
| Calcium ($Ca^{+2}$)....... | .04990 | Manganese ($Mn^{+2}$)*.... | .03640 |
| Carbonate ($CO_3^{-2}$).... | .03333 | Nickel ($Ni^{+2}$)*....... | .03406 |
| Chloride ($Cl^{-2}$)...... | .02821 | Nitrate ($NO_3^{-1}$)...... | .01613 |
| Chromium ($Cr^{+6}$)*..... | .11539 | Nitrite ($NO_2^{-1}$)...... | .02174 |
| Cobalt ($Co^{+2}$)*....... | .03394 | Phosphate ($PO_4^{-3}$).... | .03159 |
| Copper ($Cu^{+2}$)*....... | .03148 | Potassium ($K^{+1}$)...... | .02557 |
| Cyanide ($CN^{-1}$)....... | .03844 | Sodium ($Na^{+1}$)........ | .04350 |
| Fluoride ($F^{-1}$)....... | .05264 | Strontium ($Sr^{+2}$)*.... | .02283 |
| Hydrogen ($H^{+1}$)....... | .99209 | Sulfate ($SO_4^{-2}$)...... | .02082 |
| Hydroxide ($OH^{-1}$)..... | .05880 | Zinc ($Zn^{+2}$)*......... | .03060 |

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*Constituent reported in micrograms per liter; multiply by factor and divide results by 1,000.

NOTE: Nitrate (N) x 4.427 = Nitrate ($NO_3$).
Phosphorus (P) x 3.066 = Phosphate ($PO_4$).

Table 4.--Factors for conversion of sediment concentration in milligrams per liter to parts per million.* (All values calculated to three significant figures.)

| Range of concentration in 1,000 mg/L | Divide by | Range of concentration in 1,000 mg/L | Divide by | Range of concentration in 1,000 mg/L | Divide by | Range of concentration in 1,000 mg/L | Divide by |
|---|---|---|---|---|---|---|---|
| 0 - 8 | 1.00 | 201-217 | 1.13 | 411-424 | 1.26 | 619-634 | 1.39 |
| 8.05- 24 | 1.01 | 218-232 | 1.14 | 427-440 | 1.27 | 636-650 | 1.40 |
| 24.2 - 40 | 1.02 | 234-248 | 1.15 | 443-457 | 1.28 | 652-666 | 1.41 |
| 40.5 - 56 | 1.03 | 250-264 | 1.16 | 460-473 | 1.29 | 668-682 | 1.42 |
| 56.5 - 72 | 1.04 | 266-280 | 1.17 | 476-489 | 1.30 | 684-698 | 1.43 |
| 72.5 - 88 | 1.05 | 282-297 | 1.18 | 492-506 | 1.31 | 700-715 | 1.44 |
| 88.5 -104 | 1.06 | 299-313 | 1.19 | 508-522 | 1.32 | 717-730 | 1.45 |
| 105 -120 | 1.07 | 315-329 | 1.20 | 524-538 | 1.33 | 732-747 | 1.46 |
| 121 -136 | 1.08 | 331-345 | 1.21 | 540-554 | 1.34 | 749-762 | 1.47 |
| 137 -152 | 1.09 | 347-361 | 1.22 | 556-570 | 1.35 | 765-780 | 1.48 |
| 153 -169 | 1.10 | 363-378 | 1.23 | 572-585 | 1.36 | 782-796 | 1.49 |
| 170 -185 | 1.11 | 380-393 | 1.24 | 587-602 | 1.37 | 798-810 | 1.50 |
| 186 -200 | 1.12 | 395-409 | 1.25 | 604-617 | 1.38 | | |

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*Based on water density of 1.000 g/mL and a specific gravity of sediment of 2.65.

Table 5.--Sites of rainfall gages (digital recorder).

| Station number | Station name |
|---|---|
| | **Missouri River basin** |
| 06844700 | S. Fk. Sappa Creek near Brewster |
| 06844900 | S. Fk. Sappa Creek near Achilles |
| 06845680 | Little Beaver Creek near Goodland |
| 06846000 | Beaver Creek at Ludell |
| 06847600 | Prairie Dog Creek tributary at Colby |
| 06847900 | Prairie Dog Creek above Keith Sebelius Lake |
| 06858500 | N. Fk. Smoky Hill River near McAllaster |
| 06860000 | Smoky Hill River at Elkader |
| 06860500 | Hackberry Creek near Gove |
| 06866800 | Saline River tributary at Collyer |
| 06879650 | Kings Creek near Manhattan |
| 06889100 | Soldier Creek near Goff |
| 06889120 | Soldier Creek near Bancroft |
| 06889140 | Soldier Creek near Soldier |
| 06889160 | Soldier Creek near Circleville |
| 01450700 | Ladder Creek near Tribune<br>Lat 38°41'03", long 101°45'07" |
| 96330800 | Konza Prairie near Manhattan<br>Lat 39°05'25", long 96°33'08" |
| | **Lower Mississippi River basin** |
| 07138000 | Arkansas River at Syracuse |
| 07138600 | White Woman Creek tributary near Selkirk |
| 07138650 | White Woman Creek near Leoti |
| 07138800 | Lion Creek tributary near Modoc |
| 07140600 | Pawnee River tributary near Kalvesta |
| 07141400 | S. Fk. Walnut Creek tributary near Dighton |
| 07141600 | Long Branch Creek near Ness City |
| 07144325 | Gypsum Creek at Oliver St. Wichita |
| 07144340 | Dry Creek at Pawnee Ave. Wichita |
| 07144494 | Cowskin Creek tributary at Westfield Drive Wichita |
| 07156100 | Sand Arroyo Creek near Johnson |
| 07156250 | Bear Creek near Big Bow |
| 07157100 | Crooked Creek near Copeland |
| 00282200 | Gray Co. Landfill near Ingalls<br>Lat 37°48'11", long 100°28'22" |
| 01024500 | Jantzen Dam<br>Lat 38°35'47", long 101°02'45" |
| 01160300 | James Draw near Lakin<br>Lat 38°09'27", long 101°16'03" |
| 01222200 | Cimarron River tributary at Hugoton<br>Lat 37°10'13", long 101°22'22" |

Table 6.--Conversion of degrees Celsius (°C) to degrees Fahrenheit (°F).* (Temperature reported to nearest 0.5°C).

| °C | °F | °C | °F | °C | °F | °C | °F | °C | °F |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 32 | 10.0 | 50 | 20.0 | 68 | 30.0 | 86 | 40.0 | 104 |
| 0.5 | 33 | 10.5 | 51 | 20.5 | 69 | 30.5 | 87 | 40.5 | 105 |
| 1.0 | 34 | 11.0 | 52 | 21.0 | 70 | 31.0 | 88 | 41.0 | 106 |
| 1.5 | 35 | 11.5 | 53 | 21.5 | 71 | 31.5 | 89 | 41.5 | 107 |
| 2.0 | 36 | 12.0 | 54 | 22.0 | 72 | 32.0 | 90 | 42.0 | 108 |
| 2.5 | 36 | 12.5 | 54 | 22.5 | 72 | 32.5 | 90 | 42.5 | 108 |
| 3.0 | 37 | 13.0 | 55 | 23.0 | 73 | 33.0 | 91 | 43.0 | 109 |
| 3.5 | 38 | 13.5 | 56 | 23.5 | 74 | 33.5 | 92 | 43.5 | 110 |
| 4.0 | 39 | 14.0 | 57 | 24.0 | 75 | 34.0 | 93 | 44.0 | 111 |
| 4.5 | 40 | 14.5 | 58 | 24.5 | 76 | 34.5 | 94 | 44.5 | 112 |
| 5.0 | 41 | 15.0 | 59 | 25.0 | 77 | 35.0 | 95 | 45.0 | 113 |
| 5.5 | 42 | 15.5 | 60 | 25.5 | 78 | 35.5 | 96 | 45.5 | 114 |
| 6.0 | 43 | 16.0 | 61 | 26.0 | 79 | 36.0 | 97 | 46.0 | 115 |
| 6.5 | 44 | 16.5 | 62 | 26.5 | 80 | 36.5 | 98 | 46.5 | 116 |
| 7.0 | 45 | 17.0 | 63 | 27.0 | 81 | 37.0 | 99 | 47.0 | 117 |
| 7.5 | 45 | 17.5 | 63 | 27.5 | 81 | 37.5 | 99 | 47.5 | 117 |
| 8.0 | 46 | 18.0 | 64 | 28.0 | 82 | 38.0 | 100 | 48.0 | 118 |
| 8.5 | 47 | 18.5 | 65 | 28.5 | 83 | 38.5 | 101 | 48.5 | 119 |
| 9.0 | 48 | 19.0 | 66 | 29.0 | 84 | 39.0 | 102 | 49.0 | 120 |
| 9.5 | 49 | 19.5 | 67 | 29.5 | 85 | 39.5 | 103 | 49.5 | 121 |

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*°C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

## BIG NEMAHA RIVER BASIN

### 06814000 TURKEY CREEK NEAR SENECA, KS

LOCATION.--Lat 39 deg 56 min 52 sec, long 96 deg 06 min 30 sec, in SW1/4 NW1/4 SW1/4 sec.20, T.1 S., R.12 E., Nemaha County, Hydrologic Unit 10240007, at downstream side of highway bridge, 2.0 mi downstream from Clear Creek, 5.0 mi upstream from Big Nemaha River, and 8.0 mi northwest of Seneca.

DRAINAGE AREA.--276 sq mi.

PERIOD OF RECORD.--October 1948 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 1,037.53 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 19, 1956, water-stage recorder (occasional operation only) and nonrecording gage on former channel 400 ft south of present site at present datum. Oct. 19, 1956, to June 15, 1957, nonrecording gage at highway bridge 1.2 mi upstream at different datum. June 16, 1957, to Mar. 27, 1958, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--36 years, 129 cu ft per sec, 93,460 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,400 cu ft per sec Oct. 11, 1973, gage height, 24.77 ft; no flow at times in 1956-57, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,100 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Apr. 3 | 0300 | 9,600 | 22.89 | June 10 | 0300 | *10,600 | 23.20 |
| Apr. 22 | 0100 | 4,080 | 19.57 | July 4 | 1800 | 3,260 | 18.22 |
| Apr. 30 | 0400 | 8,400 | 22.52 | | | | |

Minimum discharge, 1.6 cu ft per sec Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.3 | 8.1 | 47 | 12 | 175 | 64 | 179 | 673 | 135 | 113 | 29 | 1.0 |
| 2 | 2.1 | 6.6 | 45 | 13 | 180 | 55 | 2870 | 470 | 134 | 107 | 28 | 7.5 |
| 3 | 1.8 | 177 | 40 | 14 | 170 | 53 | 6790 | 426 | 191 | 102 | 26 | 17 |
| 4 | 1.8 | 99 | 37 | 15 | 115 | 120 | 2710 | 424 | 127 | 1620 | 25 | 12 |
| 5 | 2.1 | 27 | 35 | 15 | 90 | 159 | 676 | 308 | 118 | 417 | 25 | 7.7 |
| 6 | 2.1 | 17 | 31 | 16 | 105 | 82 | 422 | 275 | 107 | 172 | 25 | 6.1 |
| 7 | 2.1 | 13 | 30 | 19 | 90 | 68 | 329 | 258 | 111 | 134 | 23 | 4.6 |
| 8 | 1.9 | 12 | 30 | 30 | 66 | 54 | 749 | 225 | 571 | 130 | 21 | 4.7 |
| 9 | 2.1 | 20 | 31 | 41 | 62 | 54 | 762 | 199 | 4410 | 101 | 19 | 5.6 |
| 10 | 2.3 | 34 | 32 | 34 | 60 | 65 | 414 | 188 | 6290 | 83 | 17 | 5.8 |
| 11 | 17 | 26 | 33 | 24 | 58 | 62 | 378 | 175 | 670 | 79 | 16 | 5.9 |
| 12 | 13 | 19 | 33 | 20 | 56 | 50 | 672 | 160 | 419 | 72 | 16 | 6.4 |
| 13 | 7.1 | 16 | 32 | 18 | 54 | 73 | 363 | 156 | 2020 | 66 | 15 | 7.1 |
| 14 | 5.6 | 14 | 30 | 14 | 45 | 100 | 258 | 139 | 638 | 61 | 14 | 8.6 |
| 15 | 4.5 | 13 | 25 | 12 | 41 | 266 | 234 | 142 | 769 | 56 | 13 | 8.8 |
| 16 | 4.0 | 12 | 20 | 12 | 52 | 136 | 210 | 206 | 812 | 52 | 12 | 6.9 |
| 17 | 3.7 | 12 | 16 | 11 | 50 | 494 | 185 | 143 | 345 | 59 | 11 | 6.3 |
| 18 | 3.5 | 12 | 13 | 10 | 116 | 383 | 174 | 110 | 277 | 56 | 10 | 5.5 |
| 19 | 5.7 | 12 | 10 | 9.6 | 228 | 147 | 163 | 396 | 222 | 51 | 12 | 5.1 |
| 20 | 6.3 | 12 | 9.0 | 9.6 | 113 | 147 | 159 | 925 | 284 | 48 | 11 | 4.2 |
| 21 | 10 | 10 | 9.2 | 10 | 75 | 306 | 2250 | 259 | 1070 | 53 | 15 | 3.6 |
| 22 | 24 | 11 | 9.4 | 11 | 65 | 1140 | 2560 | 857 | 565 | 48 | 21 | 3.2 |
| 23 | 13 | 12 | 9.4 | 12 | 58 | 1030 | 715 | 639 | 297 | 42 | 15 | 3.4 |
| 24 | 8.2 | 13 | 9.4 | 13 | 52 | 1170 | 415 | 261 | 207 | 40 | 11 | 3.2 |
| 25 | 6.9 | 14 | 9.6 | 15 | 50 | 770 | 318 | 750 | 172 | 40 | 9.7 | 2.5 |
| 26 | 5.4 | 13 | 9.6 | 22 | 68 | 791 | 273 | 401 | 152 | 38 | 8.6 | 2.8 |
| 27 | 5.2 | 135 | 9.8 | 50 | 89 | 899 | 421 | 245 | 158 | 36 | 7.9 | 3.9 |
| 28 | 4.4 | 195 | 10 | 115 | 66 | 401 | 278 | 222 | 302 | 34 | 7.2 | 4.7 |
| 29 | 4.8 | 70 | 10 | 280 | 69 | 311 | 1750 | 183 | 295 | 33 | 6.5 | 4.6 |
| 30 | 9.1 | 50 | 9.8 | 385 | --- | 242 | 4700 | 161 | 127 | 32 | 5.7 | 4.7 |
| 31 | 8.4 | --- | 11 | 290 | --- | 196 | --- | 149 | --- | 30 | 5.2 | --- |
| TOTAL | 190.4 | 1084.7 | 686.2 | 1552.2 | 2517 | 9889 | 32357 | 10125 | 21995 | 4005 | 480.8 | 173.4 |
| MEAN | 6.14 | 36.2 | 22.1 | 50.1 | 86.8 | 319 | 1079 | 327 | 733 | 129 | 15.5 | 5.78 |
| MAX | 24 | 195 | 47 | 385 | 228 | 1170 | 6790 | 925 | 6290 | 1620 | 29 | 17 |
| MIN | 1.8 | 6.6 | 9.0 | 9.6 | 41 | 50 | 159 | 110 | 107 | 30 | 5.2 | 1.0 |
| AC-FT | 378 | 2150 | 1360 | 3080 | 4990 | 19610 | 64180 | 20080 | 43630 | 7940 | 954 | 344 |

CAL YR 1983 TOTAL 63675.3 MEAN 174 MAX 9220 MIN 1.8 AC-FT 126300
WTR YR 1984 TOTAL 85055.7 MEAN 232 MAX 6790 MIN 1.0 AC-FT 168700

BEST COPY AVAILABLE

## 06844700 SOUTH FORK SAPPA CREEK NEAR BREWSTER, KS

LOCATION.--Lat 39 deg 17 min 07 sec, long 101 deg 27 min 56 sec, in NW1/4 NW1/4 SW1/4 sec.9, T.9 S., R.37 W., Sherman County, Hydrologic Unit 10250010, on left bank at highway bridge, 9.0 mi southwest of Brewster.

DRAINAGE AREA.--74.0 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,440 ft, from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--17 years, 0.221 cu ft per sec, 160 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 cu ft per sec May 2, 1979, gage height, 8.65 ft, from floodmark; no flow most days.

EXTREMES FOR CURRENT YEAR.--No flow.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |

CAL YR 1983 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00
WTR YR 1984 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

## 06844900 SOUTH FORK SAPPA CREEK NEAR ACHILLES, KS

LOCATION.--Lat 39 deg 40 min 37 sec, long 100 deg 43 min 18 sec, in SW1/4 SW1/4 NW1/4 sec.29, T.4 S., R.30 W., Decatur County, Hydrologic Unit 10250010, on right bank at downstream side of highway bridge, 5.5 mi southeast of Achilles, 14 mi southwest of Oberlin, and 18.5 mi upstream from confluence with North Fork.

DRAINAGE AREA.--446 sq mi, of which 68 sq mi is probably noncontributing.

PERIOD OF RECORD.--July 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,722.42 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--25 years, 4.27 cu ft per sec, 3,090 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,310 cu ft per sec June 19, 1975, gage height, 10.47 ft, from rating curve extended above 3,000 cu ft per sec; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum recorded discharge 673 cu ft per sec Aug. 20, gage height, 9.68 ft, no other peak above base of 100 cu ft per sec; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .04 | .13 | .27 | 6.6 | 1.3 | .27 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .04 | .10 | 1.2 | 6.9 | .97 | .53 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .04 | .07 | .53 | 8.2 | .90 | .35 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .04 | .09 | .39 | 7.7 | .77 | .44 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .04 | .05 | .35 | 7.9 | .70 | .35 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .04 | .06 | .39 | 7.5 | .59 | .31 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .04 | .09 | .35 | 6.3 | .53 | .23 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .04 | .04 | .35 | 5.9 | .44 | .10 | 1.5 | .00 |
| 9 | .00 | .00 | .00 | .00 | .05 | .05 | .35 | 5.7 | .48 | .03 | .06 | .00 |
| 10 | .00 | .00 | .00 | .00 | .05 | .06 | .35 | 5.4 | .44 | .01 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .07 | .08 | .39 | 5.2 | .53 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .04 | .10 | .35 | 4.7 | .48 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .03 | .11 | .35 | 4.0 | .39 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .04 | .06 | .35 | 3.6 | .39 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .05 | .05 | .35 | 3.4 | .35 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .06 | .02 | .35 | 3.3 | .39 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .04 | .04 | .35 | 4.4 | .83 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .03 | .06 | .35 | 5.7 | .31 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .02 | .26 | .35 | 4.8 | .31 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .01 | .53 | 7.0 | 4.7 | .31 | .00 | 68 | .00 |
| 21 | .00 | .00 | .00 | .00 | .03 | .41 | 6.8 | 4.7 | .35 | .00 | 32 | .00 |
| 22 | .00 | .00 | .00 | .01 | .06 | .18 | 6.0 | 4.2 | .31 | .00 | 2.9 | .00 |
| 23 | .00 | .00 | .00 | .00 | .10 | .09 | 5.0 | 3.6 | .31 | .00 | 1.5 | .00 |
| 24 | .00 | .00 | .00 | .00 | .14 | .14 | 4.5 | 3.3 | .31 | .00 | .10 | .00 |
| 25 | .00 | .00 | .00 | .02 | .15 | .18 | 4.2 | 2.8 | .31 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .03 | .16 | .27 | 4.1 | 2.8 | .31 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .04 | .07 | .21 | 4.1 | 2.8 | .27 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .04 | .05 | .12 | 4.0 | 2.4 | .27 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .04 | .10 | .15 | 6.6 | 2.0 | .27 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .04 | --- | .19 | 6.6 | 1.7 | .23 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .04 | --- | 2.3 | --- | 1.6 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .26 | 1.67 | 6.29 | 66.62 | 143.8 | 14.35 | 2.62 | 106.06 | .00 |
| MEAN | .000 | .000 | .000 | .008 | .058 | .20 | 2.22 | 4.64 | .48 | .085 | 3.42 | .000 |
| MAX | .00 | .00 | .00 | .04 | .16 | 2.3 | 7.0 | 8.2 | 1.3 | .53 | 68 | .00 |
| MIN | .00 | .00 | .00 | .00 | .01 | .02 | .27 | 1.6 | .23 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .5 | 3.3 | 12 | 132 | 285 | 28 | 5.2 | 210 | .00 |

CAL YR 1983 TOTAL 492.75 MEAN 1.35 MAX 25 MIN .00 AC-FT 977
WTR YR 1984 TOTAL 341.67 MEAN .93 MAX 68 MIN .00 AC-FT 678

## 06846500 BEAVER CREEK AT CEDAR BLUFFS, KS

**LOCATION.**--Lat 39 deg 59 min 06 sec, long 100 deg 33 min 35 sec, in NW1/4 NE1/4 sec.10, T.1 S., R.29 W., Decatur County, Hydrologic Unit 10250014, on right bank at downstream side of bridge on U.S. Highway 83, 0.2 mi north of Cedar Bluffs, 1.0 mi south of Kansas-Nebraska State line, and at mile 107.4.

**DRAINAGE AREA.**--1,618 sq mi, of which 294 sq mi is probably noncontributing.

### WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

**REVISED RECORDS.**--WSP 1310: 1947, 1950-51.

**GAGE.**--Water-stage recorder. Datum of gage is 2,520.33 ft National Geodetic Vertical Datum of 1929. Prior to Aug. 19, 1971, at site 0.1 mi upstream at same datum. Aug. 19, 1971, to July 12, 1972, at site 0.8 mi downstream at datum 5.00 ft lower.

**REMARKS.**--Records fair.

**AVERAGE DISCHARGE.**--39 years, 17.4 cu ft per sec, 12,610 acre-ft per yr.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 7,940 cu ft per sec June 11, 1960, gage height, 18.71 ft at site 0.1 mi upstream at same datum; no flow at times in most years.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood in July 1944 reached a stage of 18.16 ft, from floodmark.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 39 cu ft per sec June 20, gage height, 5.32 ft, no peak above base of 300 cu ft per sec; no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.2 | 3.5 | 1.1 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.2 | 3.4 | .95 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.7 | 3.2 | .87 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.8 | 2.9 | .91 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.2 | 2.8 | .82 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 10 | 2.6 | .75 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 13 | 2.4 | .60 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 11 | 2.1 | .52 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.6 | 2.0 | .45 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.5 | 1.9 | .38 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 10 | 1.8 | .30 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 10 | 1.7 | .23 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.7 | 1.6 | .17 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.0 | 1.5 | .12 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.7 | 1.4 | .05 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.4 | 1.3 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.0 | 1.2 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.0 | 1.2 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.8 | 19 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.9 | 24 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.0 | 15 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.6 | 7.1 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.5 | 4.6 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .72 | 6.3 | 3.2 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | 3.3 | 5.4 | 2.4 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | 4.5 | 4.9 | 2.1 | .00 | .00 | .00 |
| 27 | .00 | .01 | .00 | .00 | .00 | .00 | 4.5 | 4.2 | 1.8 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | 4.1 | 4.2 | 1.6 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | 4.9 | 3.9 | 1.4 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | 5.6 | 3.7 | 1.2 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 3.6 | --- | .00 | .00 | --- |
| TOTAL | .00 | .01 | .00 | .00 | .00 | .00 | 27.62 | 237.0 | 121.9 | 8.22 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .92 | 7.65 | 4.06 | .27 | .000 | .000 |
| MAX | .00 | .01 | .00 | .00 | .00 | .00 | 5.6 | 13 | 24 | 1.1 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.6 | 1.2 | .00 | .00 | .00 |
| AC-FT | .00 | .02 | .00 | .00 | .00 | .00 | 55 | 470 | 242 | 16 | .00 | .00 |

CAL YR 1983 TOTAL 3165.64 MEAN 8.67 MAX 1080 MIN .00 AC-FT 6280
WTR YR 1984 TOTAL 394.75 MEAN 1.08 MAX 24 MIN .00 AC-FT 783

## 06846500 BEAVER CREEK AT CEDAR BLUFFS, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1961 to September 1965, October 1967 to September 1969.
SUSPENDED-SEDIMENT DISCHARGE: October 1961 to September 1966, October 1967 to September 1969.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| JUN | | | | | |
| 13... | 14:00 | 1.6 | 950 | 8.0 | 22.0 |

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| JUN | | | | |
| 13... | 14:00 | 1.6 | 34 | 0.15 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | SEDI-MENT, SUS-PENDED (MG/L) | BED MAT. FALL DIAM. % FINER THAN .062 MM | BED MAT. FALL DIAM. % FINER THAN .125 MM | BED MAT. FALL DIAM. % FINER THAN .250 MM | BED MAT. FALL DIAM. % FINER THAN .500 MM | BED MAT. FALL DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 22... | 11:30 | -- | 89 | 95 | 95 | 97 | 99 | 99 | 100 |
| JUN | | | | | | | | | |
| 13... | 14:00 | 34 | 76 | 82 | 84 | 87 | 93 | 96 | 100 |

BEST COPY AVAILABLE

## 06847900 PRAIRIE DOG CREEK ABOVE KEITH SEBELIUS LAKE, KS

LOCATION.--Lat 39 deg 46 min 13 sec, long 100 deg 06 min 00 sec, in SE1/4 SE1/4 sec.23, T.3 S., R.25 W., Norton County, Hydrologic Unit 10250015, on right bank, 50 ft downstream from bridge on county road, 4.0 mi east of Clayton, and at mile 90.4.

DRAINAGE AREA.--590 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1962 to current year. Prior to Dec. 28, 1980, published as Prairie Dog Creek above Norton Reservoir.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,334.94 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1974, at datum 2.00 ft higher.

REMARKS.--Records good. Diversions for irrigation above station.

AVERAGE DISCHARGE.--22 years, 8.94 cu ft per sec, 6,480 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,880 cu ft per sec Sept. 6, 1972, gage height, 14.81 ft, present datum, from rating curve extended above 3,500 cu ft per sec; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum known flood since at least 1944, 65,500 cu ft per sec May 28, 1953, at site 9.4 mi downstream, based on contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30 cu ft per sec Apr. 3, gage height, 4.25 ft, no peak above base of 700 cu ft per sec; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .40 | .83 | 2.2 | 13 | 3.8 | .41 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .39 | 1.6 | 4.9 | 13 | 3.8 | .43 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .35 | 1.5 | 22 | 11 | 3.3 | .41 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .32 | 1.3 | 9.8 | 9.4 | 3.3 | .35 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .29 | 1.1 | 7.8 | 9.1 | 3.3 | .42 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .25 | .93 | 5.4 | 9.6 | 3.3 | .37 | .00 | .00 |
| 7 | .00 | .00 | .00 | .12 | .28 | 1.1 | 4.9 | 11 | 3.2 | .27 | .00 | .00 |
| 8 | .00 | .00 | .00 | .27 | .31 | 1.0 | 4.7 | 9.0 | 2.7 | .26 | .00 | .00 |
| 9 | .00 | .00 | .00 | .27 | .35 | .77 | 4.4 | 8.0 | 2.8 | .18 | .00 | .00 |
| 10 | .00 | .00 | .00 | .18 | .34 | .84 | 4.2 | 7.9 | 2.4 | .18 | .00 | .00 |
| 11 | .00 | .00 | .00 | .16 | .36 | 1.2 | 4.2 | 7.7 | 2.4 | .18 | .00 | .00 |
| 12 | .00 | .00 | .00 | .12 | .42 | 1.3 | 4.0 | 7.3 | 2.3 | .21 | .00 | .00 |
| 13 | .00 | .00 | .00 | .06 | .52 | 1.4 | 3.7 | 7.1 | 2.2 | .21 | .00 | .00 |
| 14 | .00 | .00 | .00 | .03 | .54 | 1.4 | 3.4 | 6.1 | 2.2 | .18 | .00 | .00 |
| 15 | .00 | .00 | .00 | .02 | .89 | 1.4 | 3.3 | 5.8 | 2.1 | .18 | .00 | .00 |
| 16 | .00 | .00 | .00 | .02 | .64 | 1.3 | 3.3 | 5.5 | 2.1 | .20 | .00 | .00 |
| 17 | .00 | .00 | .00 | .02 | .66 | 1.3 | 3.3 | 5.5 | 3.2 | .22 | .00 | .00 |
| 18 | .00 | .00 | .00 | .02 | .38 | 1.3 | 3.3 | 7.7 | 2.6 | .16 | .00 | .00 |
| 19 | .00 | .00 | .00 | .02 | .35 | .48 | 3.3 | 6.0 | 2.1 | .10 | .00 | .00 |
| 20 | .00 | .00 | .00 | .02 | .41 | .82 | 3.5 | 5.7 | 1.8 | .08 | .00 | .00 |
| 21 | .00 | .00 | .00 | .02 | .40 | 3.0 | 7.8 | 5.5 | 1.6 | .08 | .00 | .00 |
| 22 | .00 | .00 | .00 | .02 | .39 | 3.5 | 14 | 9.9 | 1.4 | .05 | .00 | .00 |
| 23 | .00 | .00 | .00 | .06 | .93 | 2.4 | 15 | 6.1 | 1.3 | .02 | .00 | .00 |
| 24 | .00 | .00 | .00 | .05 | 1.5 | 2.1 | 7.9 | 4.5 | 1.0 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .06 | 1.5 | 2.1 | 6.4 | 3.8 | .92 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .08 | 1.8 | 3.8 | 5.8 | 3.8 | .90 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .11 | 1.0 | 3.8 | 5.7 | 3.9 | .75 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .17 | .69 | 3.0 | 5.2 | 3.9 | .64 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | 1.5 | .54 | 2.4 | 5.6 | 4.0 | .59 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | 1.0 | --- | 2.2 | 7.6 | 4.0 | .42 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .55 | --- | 2.2 | --- | 4.0 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | 4.95 | 17.43 | 53.37 | 186.6 | 218.8 | 64.42 | 5.15 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .16 | .60 | 1.72 | 6.22 | 7.06 | 2.15 | .17 | .000 | .000 |
| MAX | .00 | .00 | .00 | 1.5 | 1.8 | 3.8 | 22 | 13 | 3.8 | .43 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .25 | .48 | 2.2 | 3.8 | .42 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | 9.8 | 35 | 106 | 370 | 434 | 128 | 10 | .00 | .00 |

CAL YR 1983 TOTAL 678.91 MEAN 1.86 MAX 23 MIN .00 AC-FT 1350
WTR YR 1984 TOTAL 550.69 MEAN 1.50 MAX 22 MIN .00 AC-FT 1090

## 06847900 PRAIRIE DOG CREEK ABOVE KEITH SEBELIUS LAKE, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-70, 1976 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| JUN | | | | | |
| 13... | 18:55 | 2.3 | 758 | 8.0 | 22.0 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| MAR | | | | |
| 28... | 14:30 | 3.0 | 63 | 0.51 |
| MAY | | | | |
| 02... | 12:15 | 13 | 84 | 2.9 |

## 06847950 KEITH SEBELIUS LAKE NEAR NORTON, KS

**LOCATION.**--Lat 39 deg 48 min 27 sec, long 99 deg 56 min 04 sec, in SW1/4 NE1/4 sec.8, T.3 S., R.23 W., Norton County, Hydrologic Unit 10250015, in control tower near left end of Norton Dam on Prairie Dog Creek, 3.0 mi southwest of Norton, and at mile 74.9.

**DRAINAGE AREA.**--683 sq mi.

**PERIOD OF RECORD.**--October 1964 to current year. Prior to Dec. 28, 1980, published as "Norton Reservoir near Norton."

**GAGE.**--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

**REMARKS.**--Reservoir is formed by compacted earthfill dam. Storage began Oct. 6, 1964. Total capacity, 193,023 acre-ft, consisting of the following: Sedimentation, 2,920 acre-ft below elevation 2,275.5 ft; conservation pool, 33,010 acre-ft, between elevations 2,275.5 ft and 2,304.3 ft; flood control pool, 98,800 acre-ft, between elevations 2,304.3 ft and 2,331.4 ft; and surcharge pool, 58,280 acre-ft, between elevations 2,331.4 ft and 2,341.0 ft. Reservoir is used for flood control and irrigation in Almena Unit, Missouri River Basin project. Figures given herein represent total contents.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum elevation, 2,304.59 ft June 27, 1967, contents, 36,570 acre-ft; minimum since conservation pool was first filled, 2,275.82 ft Nov. 27, 28, 1981; Jan. 24, 30, 31 contents, 3,050 acre-ft.

**EXTREMES FOR CURRENT YEAR.**--Maximum elevation, 2,282.17 ft May 27, 30, June 4, 11, contents, 6,400 acre-ft; minimum, 2,278.90 ft Oct. 28, Nov. 8, 19, contents, 4,460 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on field survey of U.S. Bureau of Reclamation in 1955, revised in 1965)

| | | | |
|---|---|---|---|
| 2,276 | 3,120 | 2,280 | 5,050 |
| 2,277 | 3,560 | 2,281 | 5,640 |
| 2,278 | 4,010 | 2,282 | 6,280 |
| 2,279 | 4,510 | 2,283 | 6,980 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2279.32 | 2278.95 | 2279.06 | 2279.10 | 2279.28 | 2279.62 | 2280.23 | 2281.47 | 2282.16 | 2282.01 | 2281.15 | 2280.22 |
| 2 | 2279.31 | 2278.95 | 2279.06 | 2279.10 | 2279.29 | 2279.63 | 2280.44 | 2281.55 | 2282.16 | 2282.01 | 2281.13 | 2280.20 |
| 3 | 2279.28 | 2278.94 | 2279.07 | 2279.11 | 2279.29 | 2279.65 | 2280.51 | 2281.60 | 2282.16 | 2281.99 | 2281.10 | 2280.18 |
| 4 | 2279.26 | 2278.94 | 2279.07 | 2279.11 | 2279.29 | 2279.64 | 2280.55 | 2281.63 | 2282.17 | 2281.98 | 2281.07 | 2280.15 |
| 5 | 2279.24 | 2278.94 | 2279.07 | 2279.10 | 2279.30 | 2279.65 | 2280.58 | 2281.69 | 2282.15 | 2281.96 | 2281.05 | 2280.11 |
| 6 | 2279.22 | 2278.94 | 2279.08 | 2279.11 | 2279.30 | 2279.65 | 2280.59 | 2281.78 | 2282.14 | 2281.92 | 2281.03 | 2280.12 |
| 7 | 2279.18 | 2278.94 | 2279.08 | 2279.11 | 2279.32 | 2279.65 | 2280.64 | 2281.80 | 2282.13 | 2281.86 | 2281.04 | 2280.02 |
| 8 | 2279.17 | 2278.94 | 2279.08 | 2279.12 | 2279.32 | 2279.67 | 2280.66 | 2281.83 | 2282.13 | 2281.84 | 2281.01 | 2280.00 |
| 9 | 2279.16 | 2278.95 | 2279.08 | 2279.12 | 2279.33 | 2279.69 | 2280.68 | 2281.87 | 2282.15 | 2281.82 | 2280.98 | 2279.98 |
| 10 | 2279.15 | 2278.94 | 2279.08 | 2279.13 | 2279.34 | 2279.72 | 2280.72 | 2281.89 | 2282.12 | 2281.77 | 2280.95 | 2279.92 |
| 11 | 2279.14 | 2278.91 | 2279.08 | 2279.13 | 2279.35 | 2279.74 | 2280.78 | 2281.92 | 2282.17 | 2281.77 | 2280.92 | 2279.92 |
| 12 | 2279.11 | 2278.95 | 2279.09 | 2279.15 | 2279.35 | 2279.76 | 2280.78 | 2281.95 | 2282.13 | 2281.77 | 2280.88 | 2279.89 |
| 13 | 2279.10 | 2278.95 | 2279.10 | 2279.15 | 2279.35 | 2279.77 | 2280.77 | 2281.95 | 2282.13 | 2281.73 | 2280.85 | 2279.87 |
| 14 | 2279.09 | 2278.95 | 2279.10 | 2279.15 | 2279.36 | 2279.80 | 2280.77 | 2281.96 | 2282.13 | 2281.69 | 2280.82 | 2279.84 |
| 15 | 2279.08 | 2278.94 | 2279.10 | 2279.18 | 2279.36 | 2279.79 | 2280.78 | 2281.98 | 2282.10 | 2281.66 | 2280.78 | 2279.82 |
| 16 | 2279.06 | 2278.94 | 2279.10 | 2279.18 | 2279.37 | 2279.81 | 2280.79 | 2282.01 | 2282.13 | 2281.66 | 2280.73 | 2279.78 |
| 17 | 2279.05 | 2278.94 | 2279.08 | 2279.18 | 2279.38 | 2279.81 | 2280.80 | 2282.04 | 2282.14 | 2281.65 | 2280.68 | 2279.76 |
| 18 | 2279.04 | 2278.91 | 2279.08 | 2279.18 | 2279.48 | 2279.94 | 2280.80 | 2282.07 | 2282.14 | 2281.60 | 2280.64 | 2279.74 |
| 19 | 2279.05 | 2278.98 | 2279.08 | 2279.18 | 2279.49 | 2279.99 | 2280.80 | 2282.09 | 2282.14 | 2281.60 | 2280.63 | 2279.71 |
| 20 | 2279.03 | 2278.98 | 2279.09 | 2279.19 | 2279.49 | 2280.01 | 2280.92 | 2282.10 | 2282.15 | 2281.55 | 2280.62 | 2279.69 |
| 21 | 2279.02 | 2278.96 | 2279.09 | 2279.19 | 2279.50 | 2280.02 | 2281.07 | 2282.12 | 2282.16 | 2281.52 | 2280.59 | 2279.67 |
| 22 | 2279.02 | 2278.95 | 2279.10 | 2279.19 | 2279.52 | 2280.02 | 2281.11 | 2282.14 | 2282.14 | 2281.48 | 2280.58 | 2279.64 |
| 23 | 2279.00 | 2278.95 | 2279.10 | 2279.19 | 2279.52 | 2280.04 | 2281.13 | 2282.16 | 2282.12 | 2281.44 | 2280.54 | 2279.64 |
| 24 | 2278.97 | 2278.95 | 2279.10 | 2279.20 | 2279.52 | 2280.07 | 2281.16 | 2282.13 | 2282.12 | 2281.41 | 2280.50 | 2279.59 |
| 25 | 2278.98 | 2278.94 | 2279.10 | 2279.20 | 2279.52 | 2280.08 | 2281.21 | 2282.15 | 2282.10 | 2281.38 | 2280.46 | 2279.55 |
| 26 | 2278.97 | 2278.95 | 2279.10 | 2279.20 | 2279.54 | 2280.17 | 2281.23 | 2282.15 | 2282.08 | 2281.34 | 2280.45 | 2279.54 |
| 27 | 2278.95 | 2279.06 | 2279.10 | 2279.20 | 2279.55 | 2280.18 | 2281.23 | 2282.17 | 2282.08 | 2281.31 | 2280.42 | 2279.51 |
| 28 | 2278.91 | 2279.07 | 2279.10 | 2279.22 | 2279.57 | 2280.17 | 2281.25 | 2282.16 | 2282.06 | 2281.28 | 2280.38 | 2279.50 |
| 29 | 2278.94 | 2279.07 | 2279.10 | 2279.24 | 2279.60 | 2280.18 | 2281.37 | 2282.16 | 2282.04 | 2281.24 | 2280.34 | 2279.49 |
| 30 | 2278.95 | 2279.07 | 2279.10 | 2279.24 | --- | 2280.20 | 2281.39 | 2282.17 | 2282.01 | 2281.20 | 2280.30 | 2279.47 |
| 31 | 2278.95 | --- | 2279.10 | 2279.25 | --- | 2280.22 | --- | 2282.15 | --- | 2281.17 | 2280.27 | --- |
| MEAN | 2279.09 | 2278.96 | 2279.09 | 2279.16 | 2279.41 | 2279.88 | 2280.86 | 2281.96 | 2282.12 | 2281.63 | 2280.74 | 2279.82 |
| MAX | 2279.32 | 2279.07 | 2279.10 | 2279.25 | 2279.60 | 2280.22 | 2281.39 | 2282.17 | 2282.17 | 2282.01 | 2281.15 | 2280.22 |
| MIN | 2278.91 | 2278.91 | 2279.06 | 2279.10 | 2279.28 | 2279.62 | 2280.23 | 2281.47 | 2282.01 | 2281.17 | 2280.27 | 2279.47 |
| (+) | 4,480 | 4,540 | 4,560 | 4,640 | 4,830 | 5,180 | 5,890 | 6,390 | 6,290 | 5,750 | 5,210 | 4,760 |
| (#) | -220 | +60 | +20 | +80 | +190 | +350 | +710 | +500 | -100 | -540 | -540 | -450 |

CAL YR 1983 ........................ (#) +910
WTR YR 1984 ........................ (#) +60

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 06848000 PRAIRIE DOG CREEK AT NORTON, KS

LOCATION.--Lat 39 deg 48 min 36 sec, long 99 deg 55 min 18 sec, in NW1/4 NW1/4 sec.9, T.3 S., R.23 W., Norton County, Hydrologic Unit 10250015, 0.9 mi downstream from Norton Dam, 2.0 mi southwest of Norton, and at mile 74.0.

DRAINAGE AREA.--684 sq mi.

PERIOD OF RECORD.--October 1943 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1944(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,237.38 ft National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Apr. 13 to May 7, 1944, nonrecording gage and May 8, 1944, to Sept. 30, 1961, water-stage recorder at site 3.2 mi downstream at datum 19.47 ft lower. Oct. 1, 1961, to Apr. 19, 1965, water-stage recorder at site 0.5 mi upstream at datum 3.82 ft lower. Apr. 20, 1965, to Sept. 30, 1974, water-stage recorder at same site at datum 2.00 ft higher.

REMARKS.--Records fair. Flow completely regulated since 1964 by Keith Sebelius Lake (see sta 06847950).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,500 cu ft per sec May 28, 1953, gage height, 25.6 ft, site and datum then in use, from rating curve extended above 14,000 cu ft per sec on basis of main channel velocity-area study and computation of peak flow over road; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1.7 cu ft per sec Apr. 4, gage height, 3.28 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .07 | .09 | .37 | .09 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .01 | .07 | .76 | .24 | .07 | .03 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .01 | .07 | .71 | .21 | .07 | .01 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .01 | .07 | .39 | .15 | .08 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .06 | .19 | .15 | .09 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .05 | .17 | .33 | .07 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .06 | .14 | .28 | .05 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .01 | .05 | .11 | .14 | .05 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .06 | .04 | .11 | .13 | .09 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .06 | .05 | .11 | .14 | .07 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .09 | .05 | .16 | .12 | .10 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .06 | .06 | .17 | .11 | .09 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .06 | .09 | .11 | .11 | .08 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .08 | .10 | .07 | .11 | .07 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .09 | .09 | .07 | .11 | .06 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .07 | .07 | .07 | .11 | .05 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .05 | .11 | .07 | .09 | .10 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .05 | .15 | .06 | .11 | .05 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .01 | .07 | .13 | .05 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .04 | .14 | .19 | .11 | .07 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .16 | .40 | 1.1 | .11 | .09 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .22 | .24 | .54 | .12 | .06 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .16 | .18 | .26 | .09 | .04 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .11 | .19 | .15 | .09 | .04 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .11 | .15 | .14 | .07 | .04 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .13 | .38 | .11 | .08 | .04 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .07 | .22 | .11 | .09 | .02 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .05 | .14 | .07 | .07 | .02 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .04 | .11 | .34 | .27 | .01 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .08 | .36 | .12 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .09 | --- | .09 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | 1.80 | 3.64 | 7.20 | 4.45 | 1.81 | .04 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .062 | .12 | .24 | .14 | .060 | .001 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .22 | .40 | 1.1 | .37 | .10 | .03 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .01 | .06 | .07 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | 3.6 | 7.2 | 14 | 8.8 | 3.6 | .08 | .00 | .00 |

CAL YR 1983 TOTAL 7.07 MEAN .019 MAX .73 MIN .00 AC-FT 14
WTR YR 1984 TOTAL 18.94 MEAN .052 MAX 1.1 MIN .00 AC-FT 38

BEST COPY AVAILABLE

## 06848500 PRAIRIE DOG CREEK NEAR WOODRUFF, KS

LOCATION.--Lat 39 deg 59 min 09 sec, long 99 deg 28 min 39 sec, in NW1/4 NW1/4 sec.9, T.1 S., R.19 W., Phillips County, Hydrologic Unit 10250015, on left bank at downstream side of bridge on U.S. Highway 383, 1.0 mi south of Kansas-Nebraska State line, 2.5 mi west of Woodruff, and at mile 26.5.

DRAINAGE AREA.--1,007 sq mi.

PERIOD OF RECORD.--October 1928 to September 1932, October 1944 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 2,016.20 ft National Geodetic Vertical Datum of 1929. See WSP 191 for history of changes prior to Oct. 7, 1955.

REMARKS.--Records poor. Flow regulated to some extent since 1964 by Keith Sebelius Lake 48.4 mi upstream (see st 06847950) and by irrigation development above station.

AVERAGE DISCHARGE.--44 years, (water years 1929-32, 1945-84), 33.9 cu ft per sec, 24,560 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 cu ft per sec June 23, 1947, gage height, 21.04 ft, sit and datum then in use, from rating curve extended above 6,500 cu ft per sec on basis of contracted-opening mea urement of 11,300 cu ft per sec; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge observed, 13.8 cu ft per sec result of discharge measurement, May 3, gage height, 5.46 ft; but may have been greater during period of backwater, Apr. 1 to May 2; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .20 | .00 | .00 | .00 | .00 | .00 | 19 | 18 | .00 | .00 | .00 | .00 |
| 2 | .06 | .00 | .00 | .00 | .02 | .00 | 30 | 16 | .00 | .00 | .00 | .00 |
| 3 | .01 | .00 | .00 | .00 | .15 | .00 | 15 | 14 | .00 | .00 | .00 | .00 |
| 4 | .01 | .00 | .00 | .00 | .22 | .00 | 11 | 13 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .11 | .00 | 8.0 | 14 | .00 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .04 | .00 | 7.0 | 15 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .02 | .00 | 6.5 | 13 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .01 | .00 | 6.0 | 12 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .01 | .00 | 5.8 | 11 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | 5.6 | 11 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | 5.4 | 10 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | 5.2 | 10 | .00 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | 5.0 | 7.0 | .00 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | 4.7 | 4.0 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | 4.5 | 2.0 | .00 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | 4.5 | 2.5 | .00 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | 4.5 | 1.9 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | 4.5 | 1.3 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | 5.0 | 1.1 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | 12 | 1.3 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | 20 | 1.5 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | 14 | 2.5 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | 12 | 2.9 | .00 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .01 | 9.0 | 1.5 | .00 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .01 | 8.5 | .81 | .00 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .07 | 7.6 | .00 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .07 | 7.2 | .00 | .00 | [illegible] | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .15 | 8.0 | .00 | .00 | [illegible] | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .16 | 14 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | 2.9 | 14 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .06 | --- | 11 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .28 | .00 | .00 | .06 | .58 | 14.40 | 283.5 | 187.21 | .00 | .00 | .00 | .00 |
| MEAN | .009 | .000 | .000 | .002 | .020 | .46 | 9.45 | 6.04 | .000 | .000 | .000 | .000 |
| MAX | .20 | .00 | .00 | .06 | .22 | 11 | 30 | 18 | .00 | .00 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | 4.5 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .6 | .00 | .00 | .1 | 1.2 | 29 | 562 | 371 | .00 | .00 | .00 | .00 |

CAL YR 1983 TOTAL 1562.31 MEAN 4.28 MAX 737 MIN .00 AC-FT 3100
WTR YR 1984 TOTAL 496.03 MEAN 1.33 MAX 30 MIN .00 AC-FT [illegible]

## 06853500 REPUBLICAN RIVER NEAR HARDY, NE

LOCATION.--Lat 39 deg 59 min 33 sec, long 97 deg 55 min 53 sec, in NE1/4 NE1/4 SE1/4 sec.1, T.1 S., R.5 W., in Kansas, Republic County, Hydrologic Unit 10250016, on right bank at upstream side of highway bridge, 1.2 mi southwest of Hardy and at mile 141.2.

DRAINAGE AREA.--22,401 sq mi, of which about 7,500 sq mi does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1904 to September 1915 (no winter records), April 1931 to current year. Prior to May 1932, published as "at Bostwick." Records for June 1896 to November 1903 published as "near Superior" in 18th to 22nd Ann. Repts., inclusive, Pt. 4, and WSP 75, 84, and 99, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 806: Drainage area. WSP 1006: 1941. WSP 1340: 1905(M), 1907-09, 1912, 1914-15, 1931. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 1,501.45 ft National Geodetic Vertical Datum of 1929. Prior to May 19, 1932, nonrecording gage at site at Bostwick, 20 mi upstream at different datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station and by storage in reservoirs in Colorado, Kansas and Nebraska. Considerable regulation since 1952 by Harlan County Reservoir (see sta 06849000).

AVERAGE DISCHARGE.--53 years (water years 1914, 1933-84), 568 cu ft per sec, 411,500 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 225,000 cu ft per sec June 2, 1935, gage height, 19.4 ft, based on records for stations upstream; no flow Aug. 9-19, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stages since at least 1895, that of June 2, 1935, and 17.00 ft June 24, 1947, discharge, 100,000 cu ft per sec, based on records for upstream stations.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,400 cu ft per sec Oct. 1, gage height, 13.55 ft; minimum discharge, 34 cu ft per sec Sept. 21-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15000 | 261 | 192 | 509 | 1500 | 323 | 435 | 2600 | 1010 | 299 | 131 | 92 |
| 2 | 4390 | 256 | 237 | 509 | 1000 | 321 | 746 | 2000 | 939 | 316 | 115 | 128 |
| 3 | 2500 | 250 | 254 | 509 | 750 | 319 | 2550 | 1900 | 912 | 344 | 125 | 200 |
| 4 | 1400 | 361 | 231 | 504 | 600 | 344 | 2040 | 1700 | 905 | 310 | 135 | 279 |
| 5 | 710 | 347 | 228 | 510 | 500 | 365 | 1090 | 1550 | 865 | 242 | 139 | 263 |
| 6 | 620 | 292 | 216 | 460 | 425 | 377 | 534 | 1500 | 797 | 299 | 163 | 214 |
| 7 | 540 | 264 | 207 | 440 | 400 | 346 | 720 | 1450 | 779 | 255 | 171 | 174 |
| 8 | 490 | 253 | 227 | 400 | 377 | 323 | 671 | 1350 | 763 | 224 | 152 | 161 |
| 9 | 410 | 266 | 226 | 380 | 363 | 310 | 629 | 1300 | 1460 | 198 | 141 | 126 |
| 10 | 401 | 328 | 231 | 370 | 355 | 309 | 545 | 1340 | 1120 | 183 | 131 | 107 |
| 11 | 430 | 295 | 251 | 360 | 352 | 313 | 575 | 1290 | 885 | 159 | 120 | 87 |
| 12 | 480 | 290 | 243 | 350 | 348 | 317 | 597 | 1260 | 898 | 165 | 127 | 92 |
| 13 | 564 | 264 | 235 | 320 | 341 | 315 | 595 | 1240 | 898 | 155 | 140 | 82 |
| 14 | 449 | 261 | 204 | 310 | 336 | 319 | 536 | 1210 | 1380 | 137 | 130 | 64 |
| 15 | 402 | 253 | 180 | 290 | 332 | 319 | 496 | 1190 | 1230 | 142 | 111 | 50 |
| 16 | 364 | 241 | 150 | 280 | 332 | 311 | 470 | 1220 | 1140 | 157 | 102 | 49 |
| 17 | 341 | 237 | 150 | 280 | 325 | 316 | 453 | 1180 | 1100 | 165 | 97 | 49 |
| 18 | 319 | 235 | 150 | 290 | 332 | 335 | 435 | 1170 | 780 | 148 | 67 | 67 |
| 19 | 319 | 255 | 150 | 280 | 336 | 331 | 424 | 2100 | 560 | 136 | 91 | 43 |
| 20 | 316 | 355 | 155 | 290 | 330 | 297 | 425 | 2510 | 634 | 119 | 109 | 40 |
| 21 | 322 | 313 | 155 | 290 | 335 | 410 | 697 | 2110 | 435 | 142 | 195 | 36 |
| 22 | 316 | 292 | 150 | 320 | 336 | 553 | 3750 | 1670 | 429 | 129 | 261 | 34 |
| 23 | 301 | 258 | 150 | 320 | 349 | 557 | 3760 | 1570 | 412 | 132 | 294 | 36 |
| 24 | 290 | 254 | 160 | 290 | 351 | 524 | 1610 | 1200 | 399 | 126 | 238 | 35 |
| 25 | 276 | 249 | 200 | 320 | 346 | 509 | 1050 | 969 | 439 | 118 | 216 | 37 |
| 26 | 284 | 246 | 240 | 360 | 351 | 562 | 1110 | 1210 | 441 | 123 | 191 | 47 |
| 27 | 258 | 244 | 250 | 520 | 354 | 722 | 1030 | 1390 | 382 | 109 | 158 | 42 |
| 28 | 256 | 167 | 230 | 780 | 344 | 700 | 959 | 1400 | 357 | 121 | 132 | 46 |
| 29 | 253 | 176 | 330 | 1100 | 331 | 579 | 921 | 1350 | 330 | 163 | 96 | 45 |
| 30 | 261 | 136 | 472 | 1600 | --- | 500 | 2300 | 1350 | 324 | 161 | 59 | 43 |
| 31 | 253 | --- | 500 | 2000 | --- | 459 | --- | 1220 | --- | 152 | 79 | --- |
| TOTAL | 33515 | 7955 | 6676 | 15511 | 12731 | 12580 | 32803 | 46495 | 22821 | 5669 | 4436 | 2739 |
| MEAN | 1081 | 265 | 215 | 500 | 439 | 406 | 1093 | 1500 | 761 | 183 | 143 | 91.3 |
| MAX | 15000 | 355 | 500 | 2000 | 1500 | 722 | 3750 | 2600 | 1460 | 344 | 294 | 279 |
| MIN | 253 | 167 | 150 | 280 | 325 | 297 | 424 | 969 | 324 | 109 | 59 | 34 |
| AC-FT | 66480 | 15780 | 13240 | 30770 | 25250 | 24950 | 65060 | 92230 | 45270 | 11240 | 8790 | 5430 |

CAL YR 1983 TOTAL 197941 MEAN 542 MAX 15000 MIN 96 AC-FT 392700
WTR YR 1984 TOTAL 204282 MEAN 559 MAX 15000 MIN 34 AC-FT 405200

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## 06853800 WHITE ROCK CREEK NEAR BURR OAK, KS

LOCATION.--Lat 39 deg 53 min 55 sec, long 98 deg 15 min 05 sec, in NE1/4 NE1/4 sec.7, T.2 S., R.8 W., Jewell County, Hydrologic Unit 10250016, on right bank 500 ft upstream from highway bridge, 3.5 mi northeast of Burr Oak, and at mile 35.4.

DRAINAGE AREA.--227 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1955-57, October 1957 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,601.5 ft National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--27 years, 24.6 cu ft per sec, 17,820 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 cu ft per sec Sept. 3, 1973, gage height, 25.06 ft, from floodmark; no flow at times many years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum known stage since at least 1869, 32.6 ft July 9, 1950, from floodmark 300 ft downstream and information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Apr. 22 | 0700 | 1,110 | 13.06 | June 9 | 1400 | *1,400 | 14.24 |

Minimum, 1.9 cu ft per sec Sept. 1.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14 | 3.5 | 8.9 | 7.8 | 100 | 27 | 31 | 154 | 43 | 25 | 5.4 | 2.1 |
| 2 | 12 | 3.8 | 8.9 | 9.0 | 70 | 29 | 224 | 125 | 55 | 25 | 5.7 | 3.0 |
| 3 | 11 | 3.7 | 8.8 | 11 | 50 | 28 | 542 | 132 | 43 | 26 | 5.4 | 2.6 |
| 4 | 9.5 | 4.1 | 8.8 | 13 | 40 | 31 | 133 | 89 | 43 | 28 | 5.1 | 2.6 |
| 5 | 8.5 | 4.1 | 8.7 | 17 | 30 | 32 | 71 | 80 | 43 | 29 | 4.7 | 3.2 |
| 6 | 7.3 | 4.3 | 8.6 | 15 | 30 | 33 | 59 | 77 | 40 | 29 | 4.5 | 2.9 |
| 7 | 6.9 | 4.6 | 8.6 | 13 | 30 | 31 | 56 | 74 | 37 | 31 | 4.5 | 3.0 |
| 8 | 5.9 | 4.9 | 9.2 | 13 | 30 | 28 | 54 | 68 | 35 | 33 | 4.2 | 3.7 |
| 9 | 5.1 | 6.9 | 10 | 13 | 35 | 27 | 52 | 56 | 955 | 31 | 4.0 | 3.8 |
| 10 | 12 | 6.8 | 8.8 | 14 | 37 | 26 | 51 | 52 | 250 | 30 | 3.7 | 3.6 |
| 11 | 705 | 6.4 | 8.4 | 16 | 36 | 26 | 51 | 50 | 65 | 26 | 3.5 | 3.2 |
| 12 | 241 | 7.1 | 8.3 | 12 | 37 | 27 | 51 | 47 | 46 | 25 | 3.3 | 3.2 |
| 13 | 38 | 7.9 | 8.3 | 11 | 35 | 29 | 50 | 45 | 46 | 24 | 3.5 | 3.2 |
| 14 | 20 | 6.9 | 8.2 | 9.0 | 33 | 29 | 44 | 42 | 38 | 23 | 3.3 | 3.1 |
| 15 | 13 | 9.3 | 8.1 | 8.0 | 32 | 30 | 39 | 40 | 51 | 22 | 3.3 | 2.9 |
| 16 | 8.8 | 8.4 | 8.0 | 7.5 | 31 | 29 | 38 | 40 | 39 | 21 | 3.2 | 3.1 |
| 17 | 7.6 | 7.9 | 7.7 | 7.0 | 30 | 30 | 37 | 40 | 35 | 20 | 3.1 | 3.0 |
| 18 | 5.8 | 7.4 | 7.2 | 6.8 | 31 | 30 | 37 | 43 | 33 | 19 | 3.3 | 3.0 |
| 19 | 5.9 | 8.0 | 6.9 | 6.7 | 31 | 34 | 36 | 227 | 31 | 18 | 4.1 | 3.5 |
| 20 | 5.7 | 9.0 | 6.8 | 6.7 | 30 | 36 | 39 | 520 | 32 | 17 | 4.3 | 3.0 |
| 21 | 6.5 | 17 | 6.5 | 6.8 | 30 | 42 | 263 | 93 | 31 | 16 | 4.7 | 3.2 |
| 22 | 8.3 | 17 | 6.5 | 7.0 | 31 | 54 | 865 | 246 | 29 | 15 | 4.9 | 3.5 |
| 23 | 17 | 13 | 6.5 | 7.2 | 32 | 59 | 285 | 206 | 28 | 14 | 3.7 | 3.9 |
| 24 | 8.9 | 10 | 6.5 | 7.6 | 33 | 51 | 112 | 83 | 26 | 13 | 3.4 | 3.6 |
| 25 | 5.8 | 9.1 | 6.5 | 8.6 | 34 | 48 | 84 | 64 | 25 | 12 | 3.2 | 3.6 |
| 26 | 4.4 | 9.1 | 6.5 | 10 | 33 | 52 | 67 | 55 | 36 | 11 | 3.6 | 3.4 |
| 27 | 4.1 | 9.0 | 7.0 | 18 | 32 | 72 | 57 | 54 | 27 | 10 | 4.4 | 4.1 |
| 28 | 2.9 | 9.0 | 9.0 | 45 | 29 | 65 | 50 | 52 | 26 | 9.0 | 4.3 | 4.9 |
| 29 | 3.2 | 9.0 | 7.6 | 103 | 28 | 63 | 76 | 48 | 26 | 8.0 | 3.1 | 5.1 |
| 30 | 3.6 | 9.0 | 7.2 | 270 | --- | 35 | 317 | 46 | 25 | 6.9 | 2.6 | 5.3 |
| 31 | 3.6 | --- | 7.2 | 150 | --- | 31 | --- | 44 | --- | 5.8 | 2.4 | --- |
| TOTAL | 1211.3 | 236.2 | 244.2 | 849.7 | 1060 | 1144 | 3871 | 2992 | 2239 | 622.7 | 122.4 | 102.2 |
| MEAN | 39.1 | 7.87 | 7.88 | 27.4 | 36.6 | 36.9 | 129 | 96.5 | 74.6 | 20.1 | 3.95 | 3.41 |
| MAX | 705 | 17 | 10 | 270 | 100 | 72 | 865 | 520 | 955 | 33 | 5.7 | 5.3 |
| MIN | 2.9 | 3.5 | 6.5 | 6.7 | 28 | 26 | 31 | 40 | 25 | 5.8 | 2.4 | 2.1 |
| AC-FT | 2400 | 469 | 484 | 1690 | 2100 | 2270 | 7680 | 5930 | 4440 | 1240 | 243 | 203 |

CAL YR 1983 TOTAL 6732.94 MEAN 18.4 MAX 705 MIN .84 AC-FT 13350

WTR YR 1984 TOTAL 14694.70 MEAN 40.1 MAX 955 MIN 2.1 AC-FT 29150

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## 06853800 WHITE ROCK CREEK NEAR BURR OAK, KS--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV | | | | | |
| 16... | 16:00 | 9.2 | 1250 | 8.1 | 5.5 |
| DEC | | | | | |
| 21... | 15:00 | 6.5 | 1380 | 7.5 | 0.0 |
| FEB | | | | | |
| 08... | 10:10 | 30 | 932 | 7.9 | 0.0 |
| MAR | | | | | |
| 29... | 09:50 | 69 | 795 | 8.0 | 6.0 |
| MAY | | | | | |
| 09... | 09:30 | 55 | 1180 | 7.8 | 11.5 |
| JUN | | | | | |
| 21... | 09:10 | 30 | 1330 | 8.0 | 23.0 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| OCT | | | | |
| 06... | 09:00 | 7.4 | 339 | 6.8 |
| NOV | | | | |
| 16... | 16:00 | 9.2 | 52 | 1.3 |
| DEC | | | | |
| 21... | 15:00 | 6.5 | 110 | 1.9 |
| FEB | | | | |
| 08... | 10:10 | 30 | 134 | 11 |
| MAR | | | | |
| 29... | 09:50 | 69 | 820 | 153 |
| MAY | | | | |
| 09... | 09:30 | 55 | 357 | 53 |
| JUN | | | | |
| 21... | 09:10 | 30 | 358 | 29 |
| JUL | | | | |
| 30... | 18:35 | 6.9 | 286 | 5.3 |
| SEP | | | | |
| 10... | 16:55 | 3.7 | 242 | 2.4 |

## 06853900 LOVEWELL RESERVOIR NEAR LOVEWELL, KS

LOCATION.--Lat 39 deg 53 min 04 sec, long 98 deg 01 min 41 sec, in NW1/4 NE1/4 NE1/4 sec.18, T.2 S., R.6 W., Jewell County, Hydrologic Unit 10250016, at south end of Lovewell Dam on White Rock Creek, 3 mi northwest of Lovewell, and 19.3 mi upstream from mouth.

DRAINAGE AREA.--345 sq mi.

PERIOD OF RECORD.--May 1957 to current year. Monthly records only, May to September 1957.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). From June 15, 1960, to May 6, 1975, water-stage recorder at north end of dam at same datum.

REMARKS.--Reservoir is formed by earthfill dam. Closure was made May 29, 1957. Total capacity of 186,290 acre-ft consists of the following: Dead storage, 5,050 acre-ft below elevation 1,562.07 ft; irrigation pool, 36,640 acre-ft between elevations 1,562.07 ft and 1,582.6 ft; flood control pool, 50,460 acre-ft between elevations 1,582.6 ft and 1,595.3 ft; and surcharge pool, 94,140 acre-ft between elevations 1,595.3 ft and 1,610.3 ft. Storage in reservoir is derived from White Rock Creek and diversion from the Republican River through upper Courtland Canal. Releases are made into White Rock Creek and for irrigation of 30,000 acres, through lower Courtland Canal. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,595.01 ft Oct. 13, 1973, contents, 90,700 acre-ft; minimum since irrigation pool was first filled, 1,563.70 ft Oct. 1, 2, 1957, contents 6,350 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,586.11 ft June 14, 15, contents, 53,100 acre-ft; minimum observed, 1,575.66 ft Aug. 20, contents, 24,270 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

| | | | | | |
|---|---|---|---|---|---|
| 1,572 | 17,280 | 1,578 | 29,480 | 1,584 | 46,020 |
| 1,574 | 20,930 | 1,580 | 34,440 | 1,586 | 52,720 |
| 1,576 | 24,980 | 1,582 | 39,920 | 1,588 | 60,030 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1578.87 | 1580.29 | 1580.55 | 1580.85 | 1582.23 | 1583.01 | 1583.27 | 1584.10 | 1584.72 | 1584.58 | 1577.99 | 1576.66 |
| 2 | 1579.01 | 1580.28 | 1580.56 | 1580.85 | 1582.31 | 1583.03 | 1583.61 | 1584.10 | 1584.60 | 1584.55 | 1577.86 | 1576.60 |
| 3 | 1579.04 | 1580.31 | 1580.57 | 1580.86 | 1582.37 | 1583.12 | 1583.96 | 1584.06 | 1584.45 | 1584.55 | 1577.73 | 1576.55 |
| 4 | 1579.07 | 1580.29 | 1580.58 | 1580.88 | 1582.45 | 1583.13 | 1584.03 | 1584.00 | 1584.39 | 1584.52 | 1577.65 | 1576.55 |
| 5 | 1579.06 | 1580.30 | 1580.59 | 1580.89 | 1582.44 | 1583.14 | 1583.95 | 1583.91 | 1584.33 | 1584.46 | 1577.60 | 1576.54 |
| 6 | 1579.06 | 1580.30 | 1580.61 | 1580.90 | 1582.47 | 1583.14 | 1583.82 | 1583.85 | 1584.26 | 1584.34 | 1577.55 | 1576.54 |
| 7 | 1579.10 | 1580.32 | 1580.62 | 1580.91 | 1582.52 | 1583.10 | 1583.75 | 1583.74 | 1584.25 | 1584.13 | 1577.46 | 1576.51 |
| 8 | 1579.09 | 1580.31 | 1580.62 | 1580.93 | 1582.53 | 1582.95 | 1583.65 | 1583.62 | 1584.24 | 1583.95 | 1577.32 | 1576.55 |
| 9 | 1579.07 | 1580.35 | 1580.63 | 1580.95 | 1582.56 | 1582.88 | 1583.53 | 1583.57 | 1585.19 | 1583.70 | 1577.14 | 1576.57 |
| 10 | 1579.16 | 1580.34 | 1580.65 | 1580.97 | 1582.60 | 1582.81 | 1583.40 | 1583.62 | 1585.72 | 1583.42 | 1576.97 | 1576.59 |
| 11 | 1579.60 | 1580.32 | 1580.65 | 1580.99 | 1582.63 | 1582.74 | 1583.37 | 1583.66 | 1585.81 | 1583.06 | 1576.84 | 1576.60 |
| 12 | 1580.05 | 1580.34 | 1580.66 | 1581.00 | 1582.65 | 1582.69 | 1583.22 | 1583.73 | 1586.00 | 1582.73 | 1576.71 | 1576.66 |
| 13 | 1580.12 | 1580.37 | 1580.68 | 1581.01 | 1582.68 | 1582.62 | 1583.12 | 1583.76 | 1586.06 | 1582.41 | 1576.61 | 1576.72 |
| 14 | 1580.13 | 1580.36 | 1580.69 | 1581.02 | 1582.69 | 1582.55 | 1582.96 | 1583.80 | 1586.11 | 1582.15 | 1576.50 | 1576.75 |
| 15 | 1580.16 | 1580.36 | 1580.68 | 1581.06 | 1582.74 | 1582.45 | 1582.84 | 1583.84 | 1586.00 | 1581.91 | 1576.39 | 1576.79 |
| 16 | 1580.15 | 1580.35 | 1580.69 | 1581.08 | 1582.73 | 1582.44 | 1582.70 | 1583.87 | 1586.00 | 1581.65 | 1576.25 | 1576.82 |
| 17 | 1580.14 | 1580.35 | 1580.70 | 1581.07 | 1582.74 | 1582.45 | 1582.63 | 1583.95 | 1585.93 | 1581.40 | 1576.09 | 1576.88 |
| 18 | 1580.15 | 1580.37 | 1580.70 | 1581.10 | 1582.65 | 1582.59 | 1582.65 | 1584.01 | 1585.85 | 1581.13 | 1575.92 | 1576.93 |
| 19 | 1580.21 | 1580.42 | 1580.71 | 1581.11 | 1582.85 | 1582.63 | 1582.69 | 1584.49 | 1585.75 | 1580.83 | 1575.78 | 1576.99 |
| 20 | 1580.20 | 1580.42 | 1580.74 | 1581.11 | 1582.86 | 1582.65 | 1582.67 | 1584.91 | 1585.64 | 1580.52 | 1575.66 | 1577.05 |
| 21 | 1580.24 | 1580.41 | 1580.75 | 1581.12 | 1582.87 | 1582.70 | 1583.10 | 1585.06 | 1585.52 | 1580.25 | 1576.00 | 1577.11 |
| 22 | 1580.25 | 1580.43 | 1580.75 | 1581.14 | 1582.90 | 1582.74 | 1583.88 | 1585.58 | 1585.43 | 1579.95 | 1576.28 | 1577.12 |
| 23 | 1580.25 | 1580.43 | 1580.76 | 1581.15 | 1582.91 | 1582.80 | 1584.30 | 1585.74 | 1585.35 | 1579.71 | 1576.52 | 1577.23 |
| 24 | 1580.27 | 1580.44 | 1580.76 | 1581.16 | 1582.93 | 1582.87 | 1584.35 | 1585.75 | 1585.23 | 1579.43 | 1576.69 | 1577.26 |
| 25 | 1580.27 | 1580.44 | 1580.77 | 1581.16 | 1582.93 | 1582.93 | 1584.25 | 1585.68 | 1585.13 | 1579.14 | 1576.82 | 1577.27 |
| 26 | 1580.28 | 1580.45 | 1580.77 | 1581.17 | 1582.97 | 1583.02 | 1584.17 | 1585.56 | 1585.04 | 1578.86 | 1576.96 | 1577.31 |
| 27 | 1580.28 | 1580.58 | 1580.80 | 1581.20 | 1582.98 | 1583.08 | 1584.07 | 1585.45 | 1584.92 | 1578.62 | 1577.07 | 1577.41 |
| 28 | 1580.26 | 1580.56 | 1580.81 | 1581.26 | 1582.99 | 1583.14 | 1583.90 | 1585.29 | 1584.76 | 1578.43 | 1577.10 | 1577.45 |
| 29 | 1580.26 | 1580.56 | 1580.81 | 1581.47 | 1583.02 | 1583.16 | 1583.98 | 1585.15 | 1584.63 | 1578.30 | 1577.06 | 1577.50 |
| 30 | 1580.27 | 1580.55 | 1580.82 | 1581.82 | --- | 1583.20 | 1584.01 | 1585.00 | 1584.59 | 1578.17 | 1576.94 | 1577.55 |
| 31 | 1580.28 | --- | 1580.83 | 1582.08 | --- | 1583.23 | --- | 1584.85 | --- | 1578.09 | 1576.76 | --- |
| MEAN | 1579.82 | 1580.39 | 1580.69 | 1581.11 | 1582.70 | 1582.87 | 1583.53 | 1584.44 | 1585.20 | 1581.58 | 1576.85 | 1576.90 |
| MAX | 1580.28 | 1580.58 | 1580.83 | 1582.08 | 1583.02 | 1583.23 | 1584.35 | 1585.75 | 1586.11 | 1584.58 | 1577.99 | 1577.55 |
| MIN | 1578.87 | 1580.28 | 1580.55 | 1580.85 | 1582.23 | 1582.44 | 1582.63 | 1583.57 | 1584.24 | 1578.09 | 1575.66 | 1576.51 |
| (+) | 35,170 | 35,880 | 36,640 | 40,150 | 42,950 | 43,600 | 46,050 | 48,790 | 47,930 | 29,700 | 26,640 | 28,430 |
| (#) | +5,020 | +710 | +760 | +3,510 | +2,800 | +650 | +2,450 | +2,740 | -860 | -18,230 | -3,060 | +1,790 |

CAL YR 1983 ........................ (#) +15,610
WTR YR 1984 ........................ (#) -1,720

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 06854000 WHITE ROCK CREEK AT LOVEWELL, KS

LOCATION.--Lat 39 deg 53 min 10 sec, long 98 deg 01 min 20 sec, in NW1/4 NW1/4 sec.17, T.2 S., R.6 W., Jewell County, Hydrologic Unit 10250016, on right bank, 1,400 ft east of Lovewell Dam, 2.5 mi northwest of Lovewell, and at mile 18.8.

DRAINAGE AREA.--345 sq mi.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1340: 1946-47, 1949-50(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,531.52 ft National Geodetic Vertical Datum of 1929 (U.S. Bureau of Reclamation bench mark). May 21, 1946, to Sept. 13, 1947, nonrecording gage, and Sept. 14, 1947, to Apr. 23, 1951, water-stage recorder, at site 3.0 mi downstream at datum 1,513.95 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Apr. 24, 1951, to Nov. 8, 1952, nonrecording gage, and Nov. 9, 1952, to June 14, 1960, water-stage recorder, at site 2.0 mi downstream at datum 1,519.53 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those above 50 cu ft per sec, which are poor. Flow completely regulated by Lovewell Reservoir beginning May 29, 1957 (see sta 06853900). Large flows from the Republican River enter Lovewell Reservoir from upper Courtland Canal. Figures of flow do not include diversion immediately above station into lower Courtland Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,300 cu ft per sec July 10, 1950, gage height, 21.62 ft, site and datum then in use, from rating curve extended above 5,200 cu ft per sec on basis of a discharge measurement of 20,800 cu ft per sec made at site about 6.0 mi upstream; no flow at times in 1946, 1953-60, 1966-67, 1971, 1980, 1983. Maximum discharge since construction of Lovewell Dam in 1957, 2,650 cu ft per sec Sept. 4, 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1870, that of July 10, 1950, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 352 cu ft per sec May 25, gage height, 4.93 ft; minimum daily discharge, 0.01 cu ft per sec, Nov. 20-26, Nov. 29 to Dec. 20, Dec. 23-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .07 | .09 | .01 | .02 | .03 | .02 | .13 | 290 | 333 | .68 | .24 | .26 |
| 2 | .05 | .08 | .01 | .02 | .03 | .03 | 1.0 | 290 | 330 | .67 | .38 | .30 |
| 3 | .05 | .08 | .01 | .02 | .02 | .04 | 184 | 291 | 328 | .62 | .66 | .10 |
| 4 | .07 | .05 | .01 | .02 | .02 | .04 | 287 | 291 | 244 | .64 | .80 | .11 |
| 5 | .06 | .02 | .01 | .03 | .02 | .03 | 296 | 283 | 146 | .37 | .76 | .10 |
| 6 | .07 | .02 | .01 | .03 | .02 | 70 | 280 | 283 | 153 | .57 | .68 | .10 |
| 7 | .04 | .02 | .01 | .02 | .02 | 117 | 275 | 294 | 107 | .57 | .47 | .07 |
| 8 | .03 | .26 | .01 | .02 | .02 | 118 | 296 | 290 | 17 | .32 | .21 | .12 |
| 9 | .03 | .26 | .01 | .02 | .02 | 126 | 283 | 191 | 13 | .39 | .72 | .10 |
| 10 | .04 | .07 | .01 | .02 | .02 | 122 | 284 | 34 | .59 | 1.2 | .94 | .11 |
| 11 | .11 | .04 | .01 | .02 | .03 | 127 | 285 | .44 | .43 | 1.8 | .82 | .11 |
| 12 | .07 | .03 | .01 | .02 | .03 | 150 | 284 | .31 | .56 | 1.2 | .75 | 2.9 |
| 13 | .06 | .03 | .01 | .02 | .04 | 163 | 282 | .29 | .49 | .47 | .59 | .82 |
| 14 | .06 | .02 | .01 | .02 | .07 | 155 | 277 | .25 | 77 | .32 | .29 | 1.1 |
| 15 | .06 | .02 | .01 | .02 | .07 | 152 | 276 | .25 | 219 | .25 | .17 | .53 |
| 16 | .04 | .02 | .01 | .03 | .09 | 78 | 277 | .26 | 215 | .34 | .22 | .46 |
| 17 | .04 | .02 | .01 | .02 | .09 | .39 | 166 | .26 | 214 | .56 | .26 | .34 |
| 18 | .18 | .02 | .01 | .02 | .06 | .24 | .62 | .33 | 210 | .55 | .21 | .22 |
| 19 | .27 | .04 | .01 | .02 | .02 | .23 | .35 | .70 | 218 | .73 | .19 | .16 |
| 20 | .10 | .01 | .01 | .02 | .02 | .23 | .38 | .32 | 222 | .75 | .22 | .21 |
| 21 | .09 | .01 | .02 | .02 | .03 | .38 | 1.2 | .20 | 221 | .55 | .57 | .26 |
| 22 | .08 | .01 | .02 | .02 | .04 | .26 | 1.3 | .54 | 219 | .32 | .12 | .12 |
| 23 | .05 | .01 | .01 | .02 | .04 | .21 | .52 | 86 | 216 | .29 | .08 | .14 |
| 24 | .05 | .01 | .01 | .02 | .04 | .26 | 128 | 149 | 211 | .52 | .09 | .11 |
| 25 | .06 | .01 | .01 | .02 | .02 | .21 | 260 | 252 | 207 | .83 | .09 | .09 |
| 26 | .05 | .01 | .01 | .02 | .02 | .25 | 284 | 337 | 214 | .53 | .10 | .08 |
| 27 | .05 | .03 | .01 | .02 | .02 | .24 | 289 | 335 | 215 | .47 | .08 | .11 |
| 28 | .04 | .02 | .02 | .04 | .02 | .17 | 289 | 332 | 214 | .40 | .10 | .11 |
| 29 | .06 | .01 | .02 | .04 | .02 | .16 | 297 | 330 | 189 | .55 | .12 | .11 |
| 30 | .07 | .01 | .02 | .03 | --- | .15 | 291 | 328 | 39 | .50 | .11 | .11 |
| 31 | .07 | --- | .02 | .02 | --- | .15 | --- | 333 | --- | .40 | .26 | --- |
| TOTAL | 2.17 | 1.33 | .37 | .70 | .99 | 1381.69 | 5875.50 | 5023.15 | 4993.07 | 18.36 | 11.30 | 9.46 |
| MEAN | .070 | .044 | .012 | .023 | .034 | 44.6 | 196 | 162 | 166 | .59 | .36 | .32 |
| MAX | .27 | .26 | .02 | .04 | .09 | 163 | 297 | 337 | 333 | 1.8 | .94 | 2.9 |
| MIN | .03 | .01 | .01 | .02 | .02 | .02 | .13 | .20 | .43 | .25 | .08 | .07 |
| AC-FT | 4.3 | 2.6 | .7 | 1.4 | 2.0 | 2740 | 11650 | 9960 | 9900 | 36 | 22 | 19 |

CAL YR 1983 TOTAL 2558.44 MEAN 7.01 MAX 409 MIN .01 AC-FT 5070
WTR YR 1984 TOTAL 17318.09 MEAN 47.3 MAX 337 MIN .01 AC-FT 34350

## 06855800 BUFFALO CREEK NEAR JAMESTOWN, KS

LOCATION.--Lat 39 deg 36 min 52 sec, long 97 deg 51 min 22 sec, in SE1/4 NE1/4 SE1/4 sec.15, T.5 S., R.5 W., Cloud County, Hydrologic Unit 10250017, on right bank at upstream side of highway bridge, 1.1 mi north of Jamestown, and 21 mi upstream from mouth.

DRAINAGE AREA.--330 sq mi, approximately.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1954-59. July 1959 to current year.

GAGE.--Water-stage recorders. Datum of gage is 1,373.66 ft National Geodetic Vertical Datum of 1929. Prior to June 7, 1966, water-stage recorder at present site and datum. June 7, 1966, to Feb. 3, 1967, nonrecording gage at site 5.4 mi downstream at different datum. Feb. 4, 1967, to May 3, 1967, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor. Waste water from the Courtland West Irrigation Canal is occasionally diverted into the salt marsh above gage and may cause a considerable increase in low flow during irrigation periods. Some diversions above station for irrigation.

AVERAGE DISCHARGE.--25 years, 67.9 cu ft per sec, 49,190 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,800 cu ft per sec Oct. 12, 1973, gage height, 19.65 ft; no flow at times in 1959, 1964-67, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stages known since at least 1898, 18.5 ft in 1948, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Jan. 30 | 2300 | 842 | 12.30 | Apr. 23 | 0900 | *1,000 | 13.61 |
| Apr. 3 | 2200 | 807 | 12.00 | Apr. 30 | 1900 | 986 | 13.48 |

Minimum discharge, 0.59 cu ft per sec Sept. 9-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 582 | 26 | 7.5 | 17 | 60 | 19 | 63 | 796 | 55 | 35 | 18 | .79 |
| 2 | 379 | 21 | 7.4 | 18 | 85 | 18 | 186 | 587 | 182 | 31 | 21 | 1.9 |
| 3 | 102 | 19 | 7.6 | 20 | 120 | 17 | 730 | 467 | 90 | 27 | 24 | 2.7 |
| 4 | 49 | 17 | 9.1 | 22 | 156 | 75 | 762 | 356 | 58 | 32 | 21 | 2.3 |
| 5 | 27 | 13 | 11 | 22 | 141 | 73 | 487 | 246 | 58 | 28 | 23 | 4.4 |
| 6 | 15 | 14 | 12 | 22 | 133 | 44 | 247 | 212 | 53 | 23 | 20 | 2.1 |
| 7 | 9.0 | 15 | 13 | 21 | 63 | 43 | 157 | 257 | 44 | 20 | 18 | 1.9 |
| 8 | 13 | 13 | 13 | 18 | 55 | 56 | 165 | 242 | 38 | 20 | 18 | 4.0 |
| 9 | 11 | 80 | 13 | 16 | 54 | 25 | 171 | 284 | 100 | 16 | 14 | 1.1 |
| 10 | 11 | 53 | 14 | 16 | 56 | 21 | 155 | 242 | 321 | 15 | 13 | 2.2 |
| 11 | 27 | 11 | 15 | 15 | 55 | 19 | 143 | 202 | 227 | 24 | 13 | 2.0 |
| 12 | 106 | 4.9 | 14 | 13 | 55 | 25 | 269 | 154 | 139 | 24 | 13 | .66 |
| 13 | 30 | 6.5 | 15 | 11 | 49 | 29 | 269 | 125 | 128 | 22 | 10 | 1.8 |
| 14 | 15 | 6.4 | 14 | 12 | 42 | 30 | 200 | 106 | 104 | 20 | 7.2 | 4.9 |
| 15 | 10 | 9.0 | 15 | 12 | 37 | 60 | 124 | 84 | 158 | 27 | 5.0 | 6.8 |
| 16 | 9.0 | 4.8 | 13 | 12 | 111 | 50 | 93 | 74 | 269 | 25 | 5.7 | 4.2 |
| 17 | 9.0 | 2.9 | 12 | 11 | 80 | 53 | 72 | 78 | 230 | 30 | 4.4 | 2.6 |
| 18 | 10 | 4.7 | 11 | 11 | 78 | 67 | 62 | 85 | 209 | 27 | 12 | 2.7 |
| 19 | 11 | 20 | 10 | 11 | 82 | 121 | 62 | 122 | 127 | 23 | 14 | 4.2 |
| 20 | 21 | 11 | 10 | 11 | 45 | 145 | 56 | 246 | 89 | 21 | 7.7 | 4.9 |
| 21 | 22 | 4.8 | 10 | 12 | 32 | 255 | 139 | 225 | 124 | 22 | 33 | 4.3 |
| 22 | 27 | 6.2 | 9.8 | 15 | 31 | 565 | 740 | 220 | 84 | 20 | 60 | 2.9 |
| 23 | 17 | 17 | 10 | 18 | 49 | 408 | 949 | 237 | 122 | 25 | 36 | 5.2 |
| 24 | 14 | 5.1 | 10 | 21 | 37 | 268 | 717 | 200 | 77 | 32 | 15 | 7.9 |
| 25 | 14 | 3.4 | 10 | 21 | 27 | 191 | 392 | 180 | 52 | 31 | 9.3 | 18 |
| 26 | 8.6 | 5.7 | 11 | 22 | 33 | 148 | 197 | 162 | 74 | 29 | 8.7 | 8.0 |
| 27 | 8.0 | 13 | 12 | 22 | 67 | 158 | 200 | 135 | 86 | 27 | 4.6 | 3.5 |
| 28 | 9.0 | 30 | 12 | 28 | 36 | 185 | 146 | 153 | 78 | 21 | 2.5 | 9.1 |
| 29 | 19 | 15 | 12 | 29 | 24 | 114 | 270 | 113 | 56 | 16 | 1.1 | 8.2 |
| 30 | 28 | 9.6 | 14 | 31 | --- | 73 | 934 | 84 | 43 | 13 | .97 | 7.7 |
| 31 | 31 | --- | 18 | 37 | --- | 65 | --- | 67 | --- | 16 | .80 | --- |
| TOTAL | 1643.6 | 462.0 | 365.4 | 567 | 1893 | 3420 | 9157 | 6741 | 3475 | 740 | 453.97 | 132.95 |
| MEAN | 53.0 | 15.4 | 11.8 | 18.3 | 65.3 | 110 | 305 | 217 | 116 | 23.9 | 14.6 | 4.43 |
| MAX | 582 | 80 | 18 | 37 | 156 | 565 | 949 | 796 | 321 | 35 | 60 | 18 |
| MIN | 8.0 | 2.9 | 7.4 | 11 | 24 | 17 | 56 | 67 | 38 | 13 | .80 | .66 |
| AC-FT | 3260 | 916 | 725 | 1120 | 3750 | 6780 | 18160 | 13370 | 6890 | 1470 | 900 | 264 |

CAL YR 1983 TOTAL 23260.20 MEAN 63.7 MAX 1040 MIN 2.9 AC-FT 46140
WTR YR 1984 TOTAL 29050.92 MEAN 79.4 MAX 949 MIN .66 AC-FT 57620

## 06856000 REPUBLICAN RIVER AT CONCORDIA, KS

LOCATION.--Lat 39 deg 35 min 25 sec, long 97 deg 39 min 32 sec, in SW1/4 SW1/4 NE1/4 sec.28, T.5 S., R.3 W., Cloud County, Hydrologic Unit 10250017, at right downstream side of bridge on U.S. Highway 81, 1.0 mi north of Concordia, 4.9 mi downstream from Buffalo Creek, and at mile 98.5.

DRAINAGE AREA.--23,560 sq mi, of which about 7,500 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310. Gage-height records collected at nearby sites since 1951 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1340: 1946-47.

GAGE.--Water-stage recorder. Datum of gage is 1,333.62 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 8, 1947, nonrecording gage at same site and datum.

REMARKS.--Records fair except those during winter months, which are poor. Natural flow affected by irrigation development above station and by storage in seven reservoirs in Colorado, Nebraska, and Kansas. Considerable regulation since 1952 by Harlan County Reservoir (see sta 06849000).

AVERAGE DISCHARGE.--39 years, 709 cu ft per sec, 513,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,000 cu ft per sec June 25, 1947, gage height, 14.90 ft; minimum, 8.0 cu ft per sec Sept. 2, 3, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1895, about 18 ft June 2, 1935, present site and datum, from information by U.S. Weather Bureau, discharge, about 207,000 cu ft per sec, on basis of records for stations upstream. Flood of June 21, 1915, reached a stage of 14.1 ft, present site and datum, from information by U.S. Weather Bureau, discharge, about 60,000 cu ft per sec.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,180 cu ft per sec Oct. 2, gage height, 8.75 ft; minimum discharge, 94 cu ft per sec Sept. 24-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6590 | 340 | 270 | 470 | 2000 | 472 | 665 | 3920 | 1680 | 679 | 407 | 206 |
| 2 | 8670 | 336 | 280 | 470 | 1200 | 655 | 702 | 3880 | 1580 | 579 | 412 | 244 |
| 3 | 3970 | 332 | 330 | 470 | 950 | 450 | 2470 | 2870 | 1490 | 538 | 405 | 259 |
| 4 | 1370 | 331 | 360 | 490 | 850 | 473 | 3990 | 2490 | 1370 | 550 | 397 | 284 |
| 5 | 1030 | 348 | 380 | 530 | 780 | 550 | 2980 | 2460 | 1310 | 543 | 395 | 337 |
| 6 | 887 | 360 | 370 | 520 | 720 | 581 | 1830 | 2020 | 1140 | 509 | 390 | 332 |
| 7 | 765 | 349 | 360 | 490 | 700 | 572 | 1390 | 2030 | 1040 | 526 | 377 | 303 |
| 8 | 690 | 320 | 350 | 460 | 672 | 559 | 1230 | 2150 | 962 | 524 | 379 | 282 |
| 9 | 628 | 329 | 350 | 450 | 632 | 618 | 1210 | 2400 | 1540 | 506 | 374 | 267 |
| 10 | 590 | 404 | 360 | 450 | 608 | 596 | 1160 | 2130 | 4040 | 459 | 371 | 241 |
| 11 | 605 | 464 | 370 | 460 | 561 | 582 | 1120 | 1910 | 1700 | 449 | 372 | 229 |
| 12 | 2960 | 381 | 380 | 450 | 549 | 589 | 1200 | 1720 | 1150 | 473 | 365 | 201 |
| 13 | 1200 | 354 | 380 | 350 | 539 | 594 | 1310 | 1600 | 1680 | 481 | 366 | 182 |
| 14 | 774 | 363 | 370 | 300 | 524 | 619 | 1210 | 1520 | 1110 | 467 | 362 | 176 |
| 15 | 631 | 338 | 360 | 270 | 508 | 636 | 1090 | 1450 | 1640 | 457 | 346 | 165 |
| 16 | 559 | 331 | 310 | 250 | 504 | 630 | 990 | 1410 | 1780 | 436 | 324 | 151 |
| 17 | 501 | 324 | 280 | 240 | 547 | 676 | 932 | 1390 | 1570 | 450 | 308 | 136 |
| 18 | 461 | 324 | 270 | 240 | 536 | 599 | 893 | 1380 | 1480 | 445 | 305 | 129 |
| 19 | 457 | 320 | 260 | 235 | 533 | 567 | 736 | 1520 | 1140 | 447 | 311 | 130 |
| 20 | 443 | 320 | 260 | 240 | 526 | 561 | 658 | 3300 | 1030 | 437 | 305 | 123 |
| 21 | 439 | 419 | 255 | 250 | 498 | 643 | 694 | 2960 | 966 | 426 | 430 | 116 |
| 22 | 450 | 392 | 255 | 250 | 483 | 1160 | 2120 | 2680 | 998 | 439 | 767 | 109 |
| 23 | 440 | 376 | 255 | 240 | 478 | 1280 | 5320 | 2900 | 946 | 433 | 438 | 104 |
| 24 | 404 | 352 | 260 | 250 | 481 | 1050 | 4930 | 2150 | 931 | 453 | 377 | 98 |
| 25 | 386 | 344 | 280 | 300 | 490 | 929 | 2400 | 1770 | 846 | 448 | 345 | 95 |
| 26 | 367 | 324 | 300 | 470 | 484 | 863 | 1830 | 1560 | 1040 | 464 | 305 | 94 |
| 27 | 353 | 334 | 340 | 720 | 487 | 846 | 1750 | 1660 | 961 | 449 | 283 | 103 |
| 28 | 344 | 288 | 310 | 1100 | 514 | 964 | 1620 | 2100 | 850 | 436 | 245 | 101 |
| 29 | 345 | 380 | 300 | 1700 | 492 | 961 | 1700 | 2020 | 810 | 424 | 233 | 97 |
| 30 | 352 | 260 | 360 | 2400 | --- | 737 | 3670 | 1920 | 756 | 426 | 223 | 96 |
| 31 | 347 | --- | 430 | 2800 | --- | 686 | --- | 1860 | --- | 424 | 207 | --- |
| TOTAL | 38008 | 10417 | 9995 | 18315 | 18846 | 21540 | 53780 | 67350 | 39536 | 14789 | 11127 | 5390 |
| MEAN | 1226 | 347 | 322 | 591 | 650 | 695 | 1793 | 2173 | 1318 | 477 | 359 | 180 |
| MAX | 8670 | 464 | 430 | 2800 | 2000 | 1280 | 5320 | 3920 | 4040 | 679 | 767 | 337 |
| MIN | 344 | 260 | 255 | 235 | 478 | 450 | 645 | 1380 | 756 | 424 | 207 | 94 |
| AC-FT | 75390 | 20660 | 19830 | 36330 | 37380 | 42720 | 106700 | 133600 | 78420 | 29330 | 22070 | 10690 |

CAL YR 1983 TOTAL 256063 MEAN 702 MAX 8670 MIN 140 AC-FT 507900
WTR YR 1984 TOTAL 309093 MEAN 845 MAX 8670 MIN 94 AC-FT 613100

## 06856600 REPUBLICAN RIVER AT CLAY CENTER, KS
(National stream-quality accounting network station)

LOCATION.--Lat 39 deg 21 min 20 sec, long 97 deg 07 min 34 sec, in SW1/4 NW1/4 SW1/4 sec.17, T.8 S., R.3 E., Clay County, Hydrologic Unit 10250017, at downstream side of bridge on State Highway 15, 1.0 mi south of Clay Center, 4.0 mi downstream from Five Creeks, and at mile 38.2.

DRAINAGE AREA.--24,542 sq mi, of which about 7,500 sq mi is noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1917 to current year. Monthly discharge only for some periods, published in WSP 1310. Prior to February 1934, published as "at Wakefield." Gage-height records collected in this vicinity August 1904 to October 1917 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 806: Drainage area. WSP 1006: 1941. WSP 1310: 1922. WSP 1340: 1929, 1933-34.

GAGE.--Water-stage recorder. Datum of gage is 1,159.21 ft National Geodetic Vertical Datum of 1929. See WSP 1919 for history of changes prior to Sept. 23, 1949.

REMARKS.--Records fair Oct. 1 to Dec. 2, Jan. 31 to Aug. 17, poor during winter months, and good Aug. 18 to Sept. 30. Natural flow affected by irrigation development above station and by reservoirs in Colorado, Nebraska, and Kansas. Flow moderately regulated since 1952 by Harlan County Reservoir (see station 06849000).

AVERAGE DISCHARGE.--67 years, 992 cu ft per sec, 718,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 195,000 cu ft per sec June 3, 1935, gage height, 25.74 ft, from floodmarks; from rating curve extended above 61,000 cu ft per sec on basis of velocity-area studies; no flow for part of Aug. 10, 1934; minimum daily, 1 cu ft per sec Aug. 9-11, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1895, 26.2 ft June 21, 1915, site and datum then in use, from information by U.S. Weather Bureau. Flood of May 29, 1903, reached a stage of 24.8 ft, site and datum then in use, from information by U.S. Weather Bureau.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,300 cu ft per sec Apr. 30, gage height, 16.49 ft; minimum discharge, 120 cu ft per sec Sept. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3280 | 389 | 314 | 500 | 3470 | 693 | 1180 | 5720 | 2150 | 1090 | 511 | 236 |
| 2 | 5080 | 372 | 313 | 540 | 3190 | 674 | 1990 | 4840 | 2040 | 1020 | 505 | 261 |
| 3 | 6940 | 360 | 397 | 580 | 2630 | 653 | 7590 | 5330 | 1910 | 915 | 489 | 271 |
| 4 | 3890 | 349 | 380 | 620 | 2180 | 650 | 7910 | 4050 | 1920 | 812 | 478 | 260 |
| 5 | 1890 | 341 | 540 | 650 | 1890 | 661 | 4930 | 3260 | 1900 | 774 | 468 | 258 |
| 6 | 1390 | 340 | 500 | 620 | 1530 | 685 | 3630 | 3150 | 1800 | 793 | 448 | 266 |
| 7 | 1160 | 373 | 450 | 610 | 1200 | 749 | 2620 | 2810 | 1590 | 740 | 437 | 288 |
| 8 | 976 | 390 | 511 | 600 | 1180 | 763 | 2140 | 2730 | 1450 | 712 | 431 | 287 |
| 9 | 835 | 384 | 491 | 600 | 1240 | 743 | 1940 | 2660 | 1480 | 726 | 415 | 269 |
| 10 | 764 | 381 | 490 | 550 | 1190 | 769 | 1850 | 2830 | 3200 | 698 | 404 | 249 |
| 11 | 702 | 388 | 480 | 520 | 1100 | 786 | 1760 | 2580 | 4860 | 674 | 398 | 236 |
| 12 | 615 | 395 | 480 | 460 | 1030 | 784 | 1710 | 2370 | 2470 | 629 | 394 | 214 |
| 13 | 1720 | 413 | 465 | 460 | 958 | 788 | 1700 | 2170 | 1920 | 606 | 390 | 210 |
| 14 | 1770 | 417 | 450 | 450 | 907 | 784 | 1760 | 2030 | 2230 | 618 | 381 | 219 |
| 15 | 1070 | 399 | 415 | 420 | 874 | 797 | 1690 | 1940 | 2190 | 608 | 379 | 184 |
| 16 | 787 | 395 | 396 | 450 | 848 | 834 | 1530 | 1870 | 3760 | 598 | 364 | 170 |
| 17 | 638 | 391 | 380 | 480 | 822 | 864 | 1360 | 1820 | 3370 | 579 | 339 | 159 |
| 18 | 561 | 379 | 350 | 450 | 812 | 910 | 1260 | 1770 | 2520 | 563 | 325 | 150 |
| 19 | 582 | 368 | 290 | 400 | 842 | 971 | 1210 | 1950 | 2290 | 572 | 317 | 146 |
| 20 | 545 | 357 | 230 | 450 | 826 | 922 | 1150 | 2610 | 1830 | 565 | 316 | 138 |
| 21 | 597 | 350 | 230 | 440 | 806 | 1090 | 1110 | 3850 | 1960 | 557 | 382 | 137 |
| 22 | 677 | 352 | 240 | 500 | 780 | 3430 | 1520 | 3330 | 2730 | 543 | 380 | 133 |
| 23 | 527 | 434 | 230 | 540 | 733 | 2410 | 2930 | 3140 | 1670 | 531 | 620 | 130 |
| 24 | 485 | 420 | 240 | 570 | 709 | 2900 | 5410 | 3320 | 1450 | 538 | 661 | 126 |
| 25 | 465 | 389 | 250 | 540 | 699 | 3030 | 4840 | 2550 | 1370 | 541 | 451 | 124 |
| 26 | 433 | 373 | 270 | 520 | 700 | 1890 | 2870 | 2220 | 1260 | 566 | 397 | 121 |
| 27 | 408 | 396 | 320 | 540 | 694 | 1790 | 2370 | 2240 | 1490 | 534 | 365 | 123 |
| 28 | 389 | 388 | 390 | 740 | 677 | 1540 | 2180 | 2560 | 1520 | 533 | 327 | 124 |
| 29 | 372 | 348 | 390 | 1110 | 679 | 1480 | 2880 | 2490 | 1290 | 517 | 303 | 124 |
| 30 | 384 | 313 | 385 | 1980 | --- | 1500 | 10000 | 2340 | 1170 | 505 | 272 | 123 |
| 31 | 402 | --- | 460 | 3710 | --- | 1330 | --- | 2210 | --- | 492 | 254 | --- |
| TOTAL | 40316 | 11344 | 11727 | 21600 | 35194 | 37369 | 87320 | 88770 | 62790 | 20129 | 12601 | 5734 |
| MEAN | 1300 | 378 | 378 | 697 | 1214 | 1222 | 2911 | 2864 | 2093 | 649 | 406 | 191 |
| MAX | 6940 | 434 | 540 | 3710 | 3470 | 3430 | 10000 | 5720 | 4860 | 1090 | 661 | 288 |
| MIN | 372 | 313 | 230 | 400 | 677 | 650 | 1110 | 1770 | 1170 | 492 | 254 | 121 |
| AC-FT | 79960 | 22500 | 23260 | 42840 | 69810 | 75110 | 173200 | 176100 | 124500 | 39930 | 24990 | 11370 |

CAL YR 1983 TOTAL 351801 MEAN 964 MAX 9620 MIN 143 AC-FT 697800
WTR YR 1984 TOTAL 435392 MEAN 1190 MAX 10000 MIN 121 AC-FT 863600

06856600 REPUBLICAN RIVER AT CLAY CENTER, KS--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1973 to September 1981.
WATER TEMPERATURES: February 1973 to September 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | BARO-METRIC PRES-SURE (MM OF HG) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 15... | 15:00 | 400 | 860 | 8.5 | 6.5 | 11.8 | 733 | 550 | 2500 |
| DEC | | | | | | | | | |
| 20... | 14:00 | 228 | 1270 | 8.2 | 0.0 | 14.9 | 739 | K7 | 39 |
| FEB | | | | | | | | | |
| 09... | 15:00 | 1220 | 690 | 8.3 | 2.0 | 13.9 | 725 | K85 | 6700 |
| APR | | | | | | | | | |
| 04... | 09:30 | 9140 | 354 | 7.9 | 6.5 | 11.6 | 730 | 4600 | >20000 |
| MAY | | | | | | | | | |
| 16... | 13:40 | 1960 | 723 | 8.1 | 14.0 | -- | -- | -- | -- |
| JUN | | | | | | | | | |
| 27... | 14:35 | 1460 | 782 | 8.6 | 25.5 | 8.3 | 729 | 370 | 920 |
| AUG | | | | | | | | | |
| 14... | 11:20 | 392 | 1040 | 8.3 | 28.0 | 7.6 | 730 | 630 | 500 |
| SEP | | | | | | | | | |
| 18... | 16:10 | 151 | 1320 | 8.1 | 21.5 | -- | -- | -- | -- |

| DATE | TUR-BID-ITY (NTU) | HARD-NESS (MG/L AS CACO3) | HARD-NESS NONCAR-BONATE (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY LAB (MG/L AS CACO3) | CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) | SULFATE DIS-SOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 15... | 37 | 350 | 350 | 110 | 18 | 56 | 1 | 12 | 254 | 1.6 | 130 |
| DEC | | | | | | | | | | | |
| 20... | 3.5 | 450 | 448 | 140 | 24 | 88 | 2 | 11 | 356 | 4.3 | 190 |
| FEB | | | | | | | | | | | |
| 09... | 140 | 260 | 259 | 82 | 13 | 43 | 1 | 10 | 197 | 1.9 | 110 |
| APR | | | | | | | | | | | |
| 04... | 510 | 110 | 108 | 33 | 6.1 | 21 | 0.9 | 6.9 | 80 | 1.9 | 56 |
| JUN | | | | | | | | | | | |
| 27... | 110 | 280 | 280 | 84 | 17 | 61 | 2 | 12 | 214 | 1.4 | 130 |
| AUG | | | | | | | | | | | |
| 14... | 66 | 210 | 214 | 54 | 19 | 67 | 2 | 15 | 167 | 1.6 | 140 |

| DATE | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) | PHOS-PHORUS, TOTAL (MG/L AS P) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 15... | 49 | 0.4 | 26 | 568 | 0.77 | 613 | 1.20 | 1.4 | 0.39 | 0.28 |
| DEC | | | | | | | | | | |
| 20... | 77 | 0.4 | 33 | 766 | 1.0 | 472 | 2.10 | 0.8 | 0.24 | 0.24 |
| FEB | | | | | | | | | | |
| 09... | 41 | 0.3 | 18 | 445 | 0.61 | 1470 | 1.60 | 1.5 | 0.50 | 0.24 |
| APR | | | | | | | | | | |
| 04... | 16 | 0.2 | 11 | 224 | 0.3 | 5530 | 1.00 | 1.4 | 0.69 | 0.15 |
| JUN | | | | | | | | | | |
| 27... | 52 | 0.5 | 14 | 511 | 0.69 | 2010 | 0.27 | 2.5 | 0.45 | 0.07 |
| AUG | | | | | | | | | | |
| 14... | 55 | 0.6 | 11 | 473 | 0.64 | 501 | 0.11 | 1.7 | 0.26 | 0.05 |

K Results based on colony count outside the acceptable range (non-ideal colony count).

### 06856600 REPUBLICAN RIVER AT CLAY CENTER, KS--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | ALUMINUM, DISSOLVED (UG/L AS AL) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, DISSOLVED (UG/L AS BA) | BERYLLIUM, DISSOLVED (UG/L AS BE) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM, DISSOLVED (UG/L AS CR) | COBALT, DISSOLVED (UG/L AS CO) | COPPER, DISSOLVED (UG/L AS CU) | IRON, DISSOLVED (UG/L AS FE) | LEAD, DISSOLVED (UG/L AS PB) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 15... | 20 | 4 | 190 | <0.5 | <1 | <1 | <3 | 3 | 10 | 2 |
| FEB 09... | 50 | 5 | 140 | <0.5 | <1 | <1 | <3 | 4 | <3 | <1 |
| APR 04... | 130 | 2 | 84 | <0.5 | 2 | <1 | <3 | 4 | 180 | 2 |
| AUG 14... | 20 | 4 | 150 | 1 | 1 | <1 | <3 | 4 | 4 | <1 |

| DATE | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY DISSOLVED (UG/L AS HG) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | STRONTIUM, DISSOLVED (UG/L AS SR) | VANADIUM, DISSOLVED (UG/L AS V) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 15... | 38 | 11 | <0.1 | 10 | 2 | 2 | <1 | 660 | <6 | 7 |
| FEB 09... | 28 | 3 | <0.1 | <10 | 1 | 3 | <1 | 450 | <6 | 6 |
| APR 04... | 10 | 30 | <0.1 | <10 | 3 | 1 | <1 | 210 | <6 | 17 |
| AUG 14... | 40 | 3 | 0.4 | <10 | 4 | 3 | <1 | 570 | 9 | 14 |

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|
| NOV 15... | 15:00 | 400 | 78 | 84 | 95 |
| DEC 20... | 14:00 | 228 | 94 | 58 | 14 |
| FEB 09... | 15:00 | 1220 | 409 | 1350 | 61 |
| APR 04... | 09:30 | 9140 | 1850 | 45700 | 97 |
| JUN 27... | 14:35 | 1460 | 493 | 1940 | 81 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM |
|---|---|---|---|---|---|---|---|
| FEB 09... | -- | -- | -- | 61 | 61 | 82 | 100 |
| APR 04... | 35 | 44 | 62 | 98 | 100 | -- | -- |
| JUN 27... | -- | -- | -- | 87 | 93 | 100 | -- |

## 06857050 MILFORD LAKE NEAR JUNCTION CITY, KS

LOCATION.--Lat 39 deg 04 min 40 sec, long 96 deg 53 min 30 sec, in SE1/4 sec.20, T.11 S., R.5 E., Geary County, Hydrologic Unit 10250017, in control tower of dam on Republican River, 5.0 mi northwest of Junction City and 7.7 mi above mouth.

DRAINAGE AREA.--24,880 sq mi, of which a large area is noncontributing.

PERIOD OF RECORD.--December 1966 to current year. Prior to October 1971, published as "Milford Reservoir."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Jan. 16, 1967. Total capacity, 1,380,000 acre-ft below elevation 1,182.0 ft. Crest of uncontrolled spillway is at elevation 1,176.2 ft. Storage capacity of 673,600 acre-ft above elevation 1,144.4 ft is provided for flood control. Storage capacity of 415,400 acre-ft below elevation 1,144.4 ft is provided for conservation and recreation. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,170.03 ft Oct. 17, 1973, contents, 982,300 acre-ft; minimum since conservation pool first filled, 1,141.17 ft Jan. 21, 1977, contents, 365,200 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,150.32 ft May 4, contents, 491,400 acre-ft; minimum, 1,143.22 ft Dec. 8, contents, 370,700 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Computed by Corps of Engineers in 1982 from topographic maps)

| | | | |
|---|---|---|---|
| 1,143 | 367,400 | 1,149 | 467,100 |
| 1,145 | 398,400 | 1,151 | 504,300 |
| 1,147 | 431,700 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1143.95 | 1145.65 | 1145.32 | 1143.78 | 1143.83 | 1144.50 | 1145.91 | 1149.88 | 1146.75 | 1149.67 | 1143.42 | 1143.36 |
| 2 | 1144.27 | 1145.67 | 1145.02 | 1143.79 | 1144.22 | 1144.53 | 1146.30 | 1150.03 | 1146.63 | 1149.37 | 1143.42 | 1143.40 |
| 3 | 1144.90 | 1145.69 | 1144.69 | 1143.81 | 1144.56 | 1144.58 | 1147.33 | 1150.18 | 1146.50 | 1149.33 | 1143.42 | 1143.37 |
| 4 | 1145.46 | 1145.66 | 1144.37 | 1143.80 | 1144.81 | 1144.60 | 1148.25 | 1150.25 | 1146.41 | 1149.23 | 1143.42 | 1143.37 |
| 5 | 1145.60 | 1145.62 | 1144.06 | 1143.78 | 1144.91 | 1144.55 | 1148.60 | 1150.21 | 1146.44 | 1149.20 | 1143.44 | 1143.35 |
| 6 | 1145.58 | 1145.58 | 1143.64 | 1143.75 | 1145.02 | 1144.57 | 1148.80 | 1150.18 | 1146.52 | 1149.20 | 1143.42 | 1143.34 |
| 7 | 1145.53 | 1145.51 | 1143.37 | 1143.73 | 1145.05 | 1144.68 | 1148.89 | 1150.08 | 1146.60 | 1149.18 | 1143.45 | 1143.40 |
| 8 | 1145.57 | 1145.58 | 1143.33 | 1143.70 | 1145.08 | 1144.55 | 1148.92 | 1149.95 | 1146.61 | 1149.14 | 1143.53 | 1143.37 |
| 9 | 1145.50 | 1145.62 | 1143.30 | 1143.70 | 1145.11 | 1144.58 | 1148.89 | 1150.01 | 1146.91 | 1149.13 | 1143.55 | 1143.41 |
| 10 | 1145.48 | 1145.42 | 1143.33 | 1143.66 | 1145.14 | 1144.57 | 1148.83 | 1150.00 | 1147.05 | 1149.10 | 1143.54 | 1143.45 |
| 11 | 1145.64 | 1145.37 | 1143.33 | 1143.65 | 1145.05 | 1144.59 | 1148.80 | 1149.92 | 1147.44 | 1148.90 | 1143.53 | 1143.43 |
| 12 | 1145.56 | 1145.37 | 1143.35 | 1143.66 | 1144.99 | 1144.60 | 1148.75 | 1149.72 | 1147.60 | 1148.55 | 1143.53 | 1143.46 |
| 13 | 1145.56 | 1145.37 | 1143.39 | 1143.64 | 1144.90 | 1144.61 | 1148.66 | 1149.57 | 1147.75 | 1148.20 | 1143.52 | 1143.55 |
| 14 | 1145.65 | 1145.37 | 1143.38 | 1143.62 | 1144.73 | 1144.59 | 1148.61 | 1149.34 | 1147.84 | 1147.90 | 1143.51 | 1143.81 |
| 15 | 1145.81 | 1145.33 | 1143.35 | 1143.62 | 1144.75 | 1144.68 | 1148.53 | 1149.14 | 1147.95 | 1147.55 | 1143.50 | 1143.91 |
| 16 | 1145.78 | 1145.32 | 1143.35 | 1143.62 | 1144.67 | 1144.70 | 1148.42 | 1148.90 | 1148.15 | 1147.20 | 1143.49 | 1143.82 |
| 17 | 1145.61 | 1145.32 | 1143.34 | 1143.60 | 1144.60 | 1144.76 | 1148.32 | 1148.69 | 1148.40 | 1146.90 | 1143.47 | 1143.85 |
| 18 | 1145.70 | 1145.34 | 1143.29 | 1143.57 | 1144.60 | 1144.94 | 1148.19 | 1148.45 | 1148.52 | 1146.52 | 1143.46 | 1143.86 |
| 19 | 1145.87 | 1145.36 | 1143.32 | 1143.55 | 1144.42 | 1145.05 | 1148.06 | 1148.30 | 1148.57 | 1146.15 | 1143.44 | 1143.89 |
| 20 | 1145.92 | 1145.33 | 1143.38 | 1143.52 | 1144.31 | 1145.10 | 1147.96 | 1148.16 | 1148.61 | 1145.80 | 1143.40 | 1143.91 |
| 21 | 1145.94 | 1145.35 | 1143.40 | 1143.48 | 1144.25 | 1145.26 | 1147.89 | 1148.13 | 1148.75 | 1145.17 | 1143.52 | 1143.88 |
| 22 | 1145.96 | 1145.41 | 1143.43 | 1143.44 | 1144.26 | 1145.64 | 1147.84 | 1148.13 | 1149.00 | 1144.45 | 1143.51 | 1143.93 |
| 23 | 1145.85 | 1145.36 | 1143.47 | 1143.43 | 1144.26 | 1145.85 | 1147.93 | 1148.02 | 1149.20 | 1143.71 | 1143.49 | 1143.89 |
| 24 | 1145.70 | 1145.35 | 1143.49 | 1143.40 | 1144.30 | 1146.17 | 1148.12 | 1147.90 | 1149.26 | 1143.40 | 1143.50 | 1143.97 |
| 25 | 1145.59 | 1145.33 | 1143.52 | 1143.38 | 1144.35 | 1146.45 | 1148.39 | 1147.85 | 1149.30 | 1143.40 | 1143.50 | 1143.95 |
| 26 | 1145.45 | 1145.45 | 1143.58 | 1143.35 | 1144.46 | 1146.45 | 1148.75 | 1147.65 | 1149.41 | 1143.40 | 1143.52 | 1143.91 |
| 27 | 1145.45 | 1145.60 | 1143.62 | 1143.33 | 1144.47 | 1146.46 | 1148.75 | 1147.58 | 1149.49 | 1143.40 | 1143.52 | 1143.95 |
| 28 | 1145.51 | 1145.58 | 1143.67 | 1143.32 | 1144.46 | 1146.43 | 1148.53 | 1147.44 | 1149.60 | 1143.42 | 1143.53 | 1143.94 |
| 29 | 1145.57 | 1145.62 | 1143.70 | 1143.36 | 1144.45 | 1146.32 | 1148.74 | 1147.27 | 1149.61 | 1143.42 | 1143.52 | 1143.94 |
| 30 | 1145.61 | 1145.57 | 1143.71 | 1143.43 | --- | 1146.20 | 1149.41 | 1147.06 | 1149.55 | 1143.41 | 1143.49 | 1143.91 |
| 31 | 1145.63 | --- | 1143.75 | 1143.58 | --- | 1146.07 | --- | 1146.85 | --- | 1143.42 | 1143.43 | --- |
| MEAN | 1145.52 | 1145.47 | 1143.65 | 1143.58 | 1144.62 | 1145.13 | 1148.31 | 1148.87 | 1148.01 | 1146.67 | 1143.48 | 1143.68 |
| MAX | 1145.96 | 1145.69 | 1145.32 | 1143.81 | 1145.14 | 1146.46 | 1149.41 | 1150.25 | 1149.61 | 1149.47 | 1143.55 | 1143.97 |
| MIN | 1143.95 | 1145.32 | 1143.29 | 1143.32 | 1143.83 | 1144.50 | 1145.91 | 1146.85 | 1146.41 | 1143.40 | 1143.40 | 1143.34 |
| (+) | 408,600 | 407,600 | 373,700 | 376,100 | 389,600 | 415,900 | 474,600 | 429,100 | 477,100 | 373,700 | 373,900 | 381,200 |
| (#) | +27,700 | -1,000 | -23,900 | -2,600 | +13,500 | +26,300 | +59,700 | -45,500 | +48,000 | -103,400 | +200 | +7,300 |

CAL YR 1983 ........................ (#) +5,000
WTR YR 1984 ........................ (#) +300

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

BEST COPY AVAILABLE

## 06857100 REPUBLICAN RIVER BELOW MILFORD DAM, KS

LOCATION.--Lat 39 deg 04 min 15 sec, long 96 deg 52 min 00 sec, Geary County, Hydrologic Unit 10250017 Fort Riley, at downstream side of bridge on U.S. Highway 77, 1.7 mi below Milford Dam, 2.5 mi northwest of Junction City, and at mile 6.0.

DRAINAGE AREA.--24,890 sq mi, of which a large area is noncontributing.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,052.50 ft National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records good except those below 175 cu ft per sec, which are poor. Flow completely regulated since 1967 by Milford Lake 1.7 mi upstream (see sta 06857050).

AVERAGE DISCHARGE.--21 years, 863 cu ft per sec, 625,200 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,200 cu ft per sec June 22, 1964, gage height, 22.10 ft; minimum daily discharge, 5.0 cu ft per sec July 5, 1983, when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,370 cu ft per sec July 24, gage height, 10.70 ft; minimum discharge observed, 14 cu ft per sec Sept. 25, but may have been less during periods of no gage-height record Dec. 19 to Jan. 5, Sept. 5-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1030 | 348 | 2310 | 32 | 620 | 444 | 2500 | 2620 | 3430 | 1480 | 432 | 324 |
| 2 | 1010 | 348 | 3180 | 65 | 190 | 535 | 2530 | 4080 | 2960 | 1470 | 420 | 330 |
| 3 | 1000 | 414 | 3150 | 120 | 618 | 660 | 2530 | 4080 | 2960 | 1470 | 411 | 324 |
| 4 | 1000 | 485 | 3140 | 200 | 666 | 667 | 2530 | 4080 | 2100 | 1470 | 407 | 200 |
| 5 | 1010 | 485 | 3130 | 500 | 668 | 664 | 2540 | 4080 | 1560 | 1120 | 402 | 100 |
| 6 | 1000 | 824 | 3110 | 660 | 780 | 669 | 2550 | 4060 | 1570 | 638 | 390 | 75 |
| 7 | 1000 | 1060 | 2480 | 659 | 1040 | 665 | 2550 | 4060 | 1590 | 638 | 395 | 50 |
| 8 | 1000 | 1060 | 1050 | 670 | 1050 | 663 | 2540 | 4030 | 1600 | 639 | 395 | 40 |
| 9 | 1000 | 1050 | 336 | 658 | 1050 | 666 | 2540 | 2080 | 1590 | 635 | 381 | 30 |
| 10 | 1000 | 756 | 306 | 657 | 1210 | 669 | 2540 | 3400 | 1570 | 1180 | 368 | 25 |
| 11 | 1000 | 493 | 284 | 658 | 1540 | 666 | 2540 | 4040 | 1560 | 2410 | 367 | 20 |
| 12 | 1000 | 500 | 267 | 660 | 1520 | 664 | 2520 | 4060 | 1560 | 3320 | 367 | 20 |
| 13 | 700 | 500 | 267 | 664 | 1520 | 654 | 2510 | 4080 | 1570 | 3310 | 360 | 15 |
| 14 | 470 | 500 | 262 | 664 | 1510 | 669 | 2490 | 4070 | 1550 | 3300 | 355 | 15 |
| 15 | 470 | 500 | 251 | 664 | 1500 | 665 | 2500 | 4060 | 1560 | 3290 | 355 | 14 |
| 16 | 470 | 456 | 251 | 666 | 1490 | 667 | 2500 | 4050 | 1560 | 3280 | 348 | 14 |
| 17 | 470 | 360 | 246 | 667 | 1490 | 664 | 2500 | 4040 | 1560 | 3280 | 348 | 14 |
| 18 | 470 | 347 | 246 | 670 | 1460 | 672 | 2490 | 4030 | 1560 | 3270 | 348 | 14 |
| 19 | 478 | 352 | 100 | 670 | 1460 | 674 | 2500 | 4020 | 1560 | 3270 | 347 | 14 |
| 20 | 465 | 352 | 50 | 670 | 1460 | 665 | 2500 | 4020 | 1560 | 3260 | 342 | 14 |
| 21 | 1230 | 355 | 22 | 670 | 1190 | 673 | 2490 | 4020 | 1560 | 4850 | 393 | 14 |
| 22 | 1600 | 354 | 15 | 670 | 689 | 673 | 2460 | 4030 | 1290 | 5930 | 348 | 14 |
| 23 | 1600 | 352 | 15 | 670 | 682 | 1370 | 2460 | 4020 | 651 | 6020 | 342 | 14 |
| 24 | 1600 | 354 | 15 | 670 | 615 | 2540 | 2470 | 4020 | 640 | 3090 | 342 | 14 |
| 25 | 1600 | 355 | 15 | 673 | 487 | 1830 | 2480 | 4000 | 638 | 701 | 342 | 14 |
| 26 | 1610 | 358 | 15 | 667 | 476 | 2550 | 2480 | 3970 | 639 | 614 | 336 | 14 |
| 27 | 844 | 385 | 15 | 664 | 462 | 2530 | 2920 | 3930 | 647 | 522 | 336 | 14 |
| 28 | 363 | 356 | 15 | 655 | 446 | 2530 | 4040 | 3920 | 1150 | 491 | 336 | 14 |
| 29 | 359 | 362 | 15 | 670 | 445 | 2510 | 4080 | 3940 | 1480 | 473 | 330 | 14 |
| 30 | 350 | 358 | 15 | 668 | --- | 2530 | 3320 | 3910 | 1480 | 453 | 330 | 14 |
| 31 | 345 | --- | 16 | 673 | --- | 2510 | --- | 3830 | --- | 438 | 324 | --- |
| TOTAL | 27567 | 14779 | 24589 | 18237 | 28334 | 35218 | 79600 | 120700 | 46705 | 66312 | 11297 | 1792 |
| MEAN | 889 | 493 | 793 | 588 | 977 | 1136 | 2653 | 3894 | 1557 | 2139 | 364 | 59.7 |
| MAX | 1610 | 1060 | 3180 | 673 | 1540 | 2550 | 4080 | 4080 | 3430 | 6020 | 432 | 330 |
| MIN | 345 | 347 | 15 | 32 | 190 | 444 | 2460 | 2080 | 638 | 438 | 324 | 14 |
| AC-FT | 54680 | 29310 | 48770 | 36170 | 56200 | 69850 | 157900 | 239400 | 92640 | 131500 | 22410 | 3550 |

CAL YR 1983 TOTAL 358095.0 MEAN 981 MAX 3190 MIN 5.0 AC-FT 710300
WTR YR 1984 TOTAL 475130.0 MEAN 1298 MAX 6020 MIN 14 AC-FT 942400

## 06858500 NORTH FORK SMOKY HILL RIVER NEAR MCALLASTER, KS

LOCATION.--Lat 39 deg 01 min 01 sec, long 101 deg 20 min 51 sec, in NW1/4 NW1/4 sec.17, T.12 S., R.36 W., Logan County, Hydrologic Unit 10260002, on left bank at upstream side of bridge on U.S. Highway 40, 3.0 mi east of McAllaster.

DRAINAGE AREA.--670 sq mi, approximately, of which about 20 sq mi is noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to September 1953. Occasional low-flow measurements 1954-59 water years. July 1959 to current year. Monthly discharge only for some periods, published in WSP 1310 (discontinued).

REVISED RECORDS.--WSP 1440: 1947(M), 1948.

GAGE.--Water-stage recorder. Datum of gage is 3,070.27 ft National Geodetic Vertical Datum of 1929. Jan. 12 to July 17, 1947, nonrecording gage, and July 18, 1947, to Sept. 30, 1953, water-stage recorder, at site 2.0 mi upstream at datum 15.75 ft higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--32 years, 3.66 cu ft per sec, 2,650 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,700 cu ft per sec June 8, 1962, gage height, 10.40 ft inside, 11.7 ft from floodmarks, from rating curve extended above 350 cu ft per sec on basis of contracted-opening measurement of peak flow; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1930 reached a stage of 14.4 ft datum at former site at railroad bridge 2.0 mi upstream, from information by Union Pacific Railroad Company (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 351 cu ft per sec Aug. 21, gage height, 5.96 ft, no other peak above base of 300 cu ft per sec; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .90 | 5.3 | 12 | .51 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .87 | 7.1 | 12 | .50 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .71 | 7.4 | 13 | .25 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .67 | 6.8 | 11 | .32 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .58 | 5.8 | 9.1 | .23 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .43 | 5.4 | 9.3 | .14 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .51 | 4.5 | 7.3 | .05 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .47 | 3.9 | 5.8 | .03 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .40 | 3.5 | 5.3 | .02 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .45 | 4.1 | 4.8 | .01 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .50 | 4.1 | 4.0 | .82 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .95 | 3.2 | 3.9 | .46 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .89 | 2.4 | 3.3 | 1.1 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .75 | 2.0 | 2.9 | .94 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .71 | 1.8 | 2.7 | .46 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .52 | 1.7 | 2.6 | .28 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .62 | 1.6 | 3.5 | .09 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .78 | 1.5 | 9.4 | .02 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .91 | 1.4 | 7.0 | .02 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | 1.9 | 2.1 | 6.4 | .01 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .01 | 3.9 | 5.2 | 5.2 | .01 | .00 | 98 | .00 |
| 22 | .00 | .00 | .00 | .00 | .81 | 3.9 | 5.9 | 3.9 | .01 | .00 | 1.3 | .00 |
| 23 | .00 | .00 | .00 | .00 | 1.5 | 3.6 | 6.3 | 3.1 | .00 | .00 | .02 | .00 |
| 24 | .00 | .00 | .00 | .00 | 1.5 | 3.6 | 5.1 | 2.4 | .00 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | 1.4 | 3.7 | 4.5 | 1.7 | .00 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | 1.3 | 6.5 | 4.2 | 1.5 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | 1.1 | 5.5 | 3.5 | 1.4 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .46 | 4.3 | 3.0 | .96 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .80 | 3.9 | 8.3 | .87 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | 3.7 | 13 | .78 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | 4.7 | --- | .67 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | 8.88 | 61.57 | 134.6 | 157.53 | 6.27 | .00 | 99.32 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .31 | 2.00 | 4.49 | 5.08 | .21 | .000 | 3.20 | .000 |
| MAX | .00 | .00 | .00 | .00 | 1.5 | 6.5 | 13 | 13 | 1.1 | .00 | 98 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .40 | 1.4 | .67 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | 18 | 123 | 267 | 313 | 12 | .00 | 197 | .00 |

CAL YR 1983 TOTAL 887.88 MEAN 2.43 MAX 146 MIN .00 AC-FT 1760
WTR YR 1984 TOTAL 468.52 MEAN 1.28 MAX 98 MIN .00 AC-FT 929

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

## 06860000 SMOKY HILL RIVER AT ELKADER, KS

LOCATION.--Lat 38 deg 47 min 33 sec, long 100 deg 51 min 19 sec, in NE1/4 SE1/4 sec.34, T.14 S., R 32 W., Logan County, Hydrologic Unit 10260003, at downstream side of bridge on U.S. Highway 83, 22.3 mi south of Oakley, 0.1 mi downstream from Ladder Creek, and at mile 409.9.

DRAINAGE AREA.--3,555 sq mi.

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1310: 1941(M), 1947(M), 1949(M). WSP 1510: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,624.62 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--45 years, 29.6 cu ft per sec, 21,450 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,300 cu ft per sec Aug. 23, 1969, gage height, 8.85 ft; maximum gage height, 9.02 ft June 17, 1955; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1937, 13.2 ft May 30, 1938, from floodmark, discharge, 71,000 cu ft per sec, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42 cu ft per sec May 19, gage height, 2.71 ft, no peak above base of 700 cu ft per sec; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .64 | .00 | .11 | 1.0 | 3.4 | 1.2 | 5.1 | 10 | 2.6 | .13 | .00 | .00 |
| 2 | .67 | .00 | .08 | 1.2 | 3.4 | 1.5 | 27 | 11 | 2.1 | 8.6 | .00 | .00 |
| 3 | .60 | .00 | .10 | 1.5 | 2.7 | 1.1 | 23 | 16 | 2.3 | 1.2 | .00 | .00 |
| 4 | .60 | .00 | .12 | 1.8 | 3.1 | 1.3 | 9.2 | 23 | 2.7 | .54 | .04 | .00 |
| 5 | .36 | .00 | .10 | 2.0 | 2.4 | 1.3 | 8.4 | 23 | 2.6 | .48 | .00 | .00 |
| 6 | .26 | .00 | .08 | 2.0 | 2.4 | .87 | 7.0 | 24 | 1.8 | .70 | .00 | .00 |
| 7 | .24 | .00 | .09 | 2.0 | 2.7 | .96 | 6.7 | 24 | 1.6 | .22 | .00 | .00 |
| 8 | .17 | .00 | .14 | 2.1 | 2.7 | 1.6 | 4.2 | 24 | 1.3 | .09 | .00 | .00 |
| 9 | .14 | .00 | .19 | 1.7 | 2.3 | 1.1 | 3.4 | 24 | 1.2 | .07 | .00 | .00 |
| 10 | .15 | .00 | .25 | 1.4 | 2.0 | 1.7 | 7.3 | 25 | .85 | .07 | 17 | .00 |
| 11 | .14 | .16 | .88 | 1.3 | 1.5 | 1.7 | 6.4 | 24 | .78 | .04 | 8.0 | .00 |
| 12 | .10 | .17 | 1.2 | 1.2 | 3.2 | 1.5 | 5.3 | 25 | .71 | .03 | .44 | .00 |
| 13 | .12 | .00 | 1.3 | 1.1 | 1.4 | 2.7 | 3.0 | 14 | .78 | .01 | .06 | .00 |
| 14 | .10 | .56 | 1.1 | 1.0 | 1.0 | 2.2 | 2.8 | 7.2 | .65 | .00 | .01 | .00 |
| 15 | .08 | .28 | .83 | 1.0 | 1.4 | 2.2 | 2.1 | 6.2 | .59 | .00 | .00 | .00 |
| 16 | .06 | .30 | .76 | .90 | 2.3 | 2.0 | 2.6 | 5.9 | .64 | .00 | .00 | .00 |
| 17 | .04 | .20 | .71 | .90 | 1.2 | 1.1 | 2.9 | 5.6 | 3.8 | .00 | .00 | .00 |
| 18 | .03 | .13 | .60 | .80 | 1.6 | 1.4 | 3.0 | 6.4 | 10 | .00 | .00 | .00 |
| 19 | .02 | .25 | .60 | 1.0 | 2.2 | 3.0 | 4.2 | 26 | 2.0 | .00 | .00 | .00 |
| 20 | .00 | .33 | .60 | .90 | 1.4 | 2.7 | 8.4 | 14 | 1.0 | .01 | .00 | .00 |
| 21 | .01 | .37 | .50 | .80 | 1.0 | 8.5 | 12 | 9.0 | .64 | 2.2 | .00 | .00 |
| 22 | .00 | .50 | .40 | 1.2 | 1.2 | 4.0 | 8.7 | 5.9 | .52 | .09 | .00 | .00 |
| 23 | .00 | .60 | .50 | 1.5 | 1.2 | 3.9 | 6.1 | 4.3 | .45 | .00 | .00 | .00 |
| 24 | .00 | .43 | .60 | 1.5 | 1.3 | 4.0 | 5.7 | 4.3 | .41 | .00 | .00 | .00 |
| 25 | .00 | .53 | .90 | 2.0 | 1.1 | 4.9 | 5.1 | 4.0 | .35 | .00 | .00 | .00 |
| 26 | .00 | .40 | .80 | 3.0 | 1.4 | 8.7 | 5.3 | 3.1 | .32 | .00 | .00 | .00 |
| 27 | .00 | .99 | .70 | 8.5 | 1.4 | 7.3 | 4.1 | 3.5 | .25 | .00 | .00 | .00 |
| 28 | .00 | .65 | .80 | 7.7 | .92 | 6.0 | 3.0 | 3.2 | .22 | .00 | .00 | .00 |
| 29 | .00 | .45 | .90 | 8.8 | .92 | 3.9 | 16 | 2.6 | .17 | .00 | .00 | .00 |
| 30 | .00 | .31 | .80 | 5.7 | --- | 3.3 | 15 | 3.1 | .14 | .00 | .00 | .00 |
| 31 | .00 | --- | .90 | 3.7 | --- | 4.6 | --- | 3.0 | --- | .00 | .00 | --- |
| TOTAL | 4.53 | 7.61 | 17.64 | 71.20 | 54.74 | 92.23 | 223.0 | 384.3 | 43.47 | 14.48 | 25.55 | .00 |
| MEAN | .15 | .25 | .57 | 2.30 | 1.89 | 2.98 | 7.43 | 12.4 | 1.45 | .47 | .82 | .000 |
| MAX | .67 | .99 | 1.3 | 8.8 | 3.4 | 8.7 | 27 | 26 | 10 | 8.6 | 17 | .00 |
| MIN | .00 | .00 | .08 | .80 | .92 | .87 | 2.1 | 2.6 | .14 | .00 | .00 | .00 |
| AC-FT | 9.0 | 15 | 35 | 141 | 109 | 183 | 442 | 762 | 86 | 29 | 51 | .00 |

CAL YR 1983 TOTAL 884.70 MEAN 2.42 MAX 451 MIN .00 AC-FT 1750
WTR YR 1984 TOTAL 938.75 MEAN 2.56 MAX 27 MIN .00 AC-FT 1860

## 06861000 SMOKY HILL RIVER NEAR ARNOLD, KS

LOCATION.--Lat 38 deg 48 min 31 sec, long 100 deg 01 min 13 sec, in SW1/4 NW1/4 sec.29, T.14 S., R.24 W., Trego County, Hydrologic Unit 10260003, on right bank near downstream side of highway bridge, 7.0 mi upstream from headwaters of Cedar Bluff Reservoir, 12 mi north of Arnold, and at mile 356.[illegible].

DRAINAGE AREA.--5,220 sq mi, approximately.

PERIOD OF RECORD.--February 1950 to current year. Prior to October 1950, published as "near Ransom."

GAGE.--Water-stage recorder. Datum of gage is 2,196.13 ft National Geodetic Vertical Datum of 1929. See WSP 1919 for history of changes prior to Sept. 30, 1961.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--34 years, 55.0 cu ft per sec, 39,850 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 cu ft per sec June 11, 1951, gage height, 12.57 ft, site and datum then in use; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1938 reached a stage of about 19 ft, present site and datum, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 959 cu ft per sec Apr. 30, gage height, 5.89 ft, no peak above base of 1,800 cu ft per sec; minimum discharge, 0.01 cu ft per sec Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .07 | .07 | .60 | .06 | 8.9 | .08 | 32 | 309 | 2.4 | .14 | .26 | .14 |
| 2 | .07 | .07 | .30 | .07 | 3.3 | .08 | 335 | 72 | 2.0 | .25 | .23 | .14 |
| 3 | .07 | .07 | .20 | .05 | 4.3 | .50 | 97 | 37 | 2.4 | .22 | .20 | .13 |
| 4 | .07 | .12 | .20 | .06 | 1.9 | .50 | 56 | 25 | 2.2 | .18 | .16 | .12 |
| 5 | .07 | .14 | .15 | .07 | .90 | .20 | 65 | 20 | 2.0 | .19 | .15 | .05 |
| 6 | .07 | .16 | .15 | .07 | .46 | .15 | 37 | 40 | 1.8 | .19 | .14 | .04 |
| 7 | .07 | .18 | .10 | .08 | .37 | .10 | 17 | 73 | 2.0 | .18 | .13 | .02 |
| 8 | .07 | .17 | .10 | .08 | .34 | .10 | 9.7 | 45 | 2.1 | .14 | .13 | .02 |
| 9 | .07 | .15 | .10 | .08 | .21 | .10 | 5.1 | 12 | 1.6 | .15 | .13 | .02 |
| 10 | .07 | .12 | .10 | .07 | .09 | .10 | 85 | 8.6 | 2.3 | .15 | .12 | .02 |
| 11 | .07 | .09 | .09 | .05 | .09 | .10 | 55 | 5.7 | 1.8 | .17 | .12 | .03 |
| 12 | .07 | .10 | .08 | .06 | .09 | 1.0 | 27 | 4.0 | 1.5 | .16 | .12 | .02 |
| 13 | .07 | .11 | .08 | .05 | .08 | 5.0 | 11 | 2.9 | 1.7 | .13 | .11 | .02 |
| 14 | .07 | .12 | .06 | .05 | .08 | 4.0 | 3.8 | 2.4 | 8.8 | .15 | .09 | .02 |
| 15 | .07 | .13 | .06 | .04 | .09 | 2.0 | 2.3 | 2.2 | 9.8 | .15 | .09 | .02 |
| 16 | .07 | .12 | .06 | .02 | .08 | 1.5 | 1.5 | 2.1 | 3.9 | .16 | .10 | .02 |
| 17 | .07 | .11 | .05 | .02 | .08 | 1.5 | 1.1 | 2.0 | 2.1 | .15 | .08 | .02 |
| 18 | .07 | .08 | .04 | .02 | .14 | 5.0 | 1.1 | 1.8 | 1.0 | .15 | .08 | .02 |
| 19 | .07 | .24 | .03 | .02 | .11 | 20 | .71 | 2.0 | .87 | .19 | .08 | .02 |
| 20 | .07 | .12 | .02 | .04 | .08 | 27 | 12 | 2.5 | .81 | .19 | 11 | .02 |
| 21 | .07 | .09 | .02 | .04 | .06 | 38 | 493 | 3.5 | .52 | .21 | 5.7 | .02 |
| 22 | .07 | .10 | .02 | .06 | .10 | 45 | 498 | 6.0 | .46 | .22 | 2.3 | .02 |
| 23 | .05 | .07 | .02 | .06 | .07 | 46 | 42 | 7.0 | .47 | .19 | 1.0 | .02 |
| 24 | .05 | .07 | .02 | .04 | .08 | 43 | 43 | 6.0 | .45 | .23 | .50 | .02 |
| 25 | .05 | .07 | .02 | .04 | .08 | 60 | 22 | 4.5 | .37 | .23 | .40 | .02 |
| 26 | .05 | .10 | .03 | .05 | .08 | 182 | 12 | 3.5 | .38 | .22 | .30 | .02 |
| 27 | .05 | 4.5 | .04 | .09 | .08 | 69 | 6.4 | 3.0 | .63 | .23 | .20 | .02 |
| 28 | .05 | 4.0 | .04 | 5.0 | .08 | 50 | 4.3 | 2.2 | .86 | .22 | .15 | .02 |
| 29 | .15 | 2.0 | .02 | 20 | .08 | 46 | 214 | 2.0 | .27 | .23 | .15 | .01 |
| 30 | .08 | 1.0 | .02 | 20 | --- | 34 | 800 | 2.3 | .17 | .23 | .15 | .01 |
| 31 | .07 | --- | .04 | 15 | --- | 37 | --- | 2.7 | --- | .27 | .14 | --- |
| TOTAL | 2.14 | 14.47 | 2.86 | 61.44 | 27.40 | 719.01 | 2989.01 | 711.9 | 57.66 | 5.87 | 24.51 | 1.09 |
| MEAN | .069 | .48 | .092 | 1.98 | .94 | 23.2 | 99.6 | 23.0 | 1.92 | .19 | .79 | .036 |
| MAX | .15 | 4.5 | .60 | 20 | 8.9 | 182 | 800 | 309 | 9.8 | .27 | 11 | .14 |
| MIN | .05 | .07 | .02 | .02 | .06 | .08 | .71 | 1.8 | .17 | .13 | .08 | .01 |
| AC-FT | 4.2 | 29 | 5.7 | 122 | 54 | 1430 | 5930 | 1410 | 114 | 12 | 49 | 2.2 |

CAL YR 1983 TOTAL 506.98 MEAN 1.39 MAX 217 MIN .02 AC-FT 1010
WTR YR 1984 TOTAL 4617.36 MEAN 12.6 MAX 800 MIN .01 AC-FT 9160

## 06861500 CEDAR BLUFF RESERVOIR NEAR ELLIS, KS

LOCATION.--Lat 38 deg 47 min 24 sec, long 99 deg 43 min 13 sec, in NE1/4 SW1/4 sec.36, T.14 S., R.22 W., Trego County, Hydrologic Unit 10260003, in control house structure of outlet works conduit at dam on Smoky Hill River, 18 mi southwest of Ellis, and at mile 333.7.

DRAINAGE AREA.--5,530 sq mi, approximately.

PERIOD OF RECORD.--November 1950 to current year (monthly records only prior to August 1960).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Aug. 20, 1960, nonrecording mercury-column gage at same site and datum.

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Nov. 13, 1950. Dam was completed in 1951. Total capacity, 870,400 acre-ft, consisting of the following: Dead storage, 8,260 acre-ft below elevation 2,090 ft, sill of trashrack structure; irrigation pool, 176,800 acre-ft between elevations 2,090 ft and 2,144 ft; spillway and uncontrolled storage, 493,400 acre-ft between elevations 2,166 ft and 2,200 ft. Reservoir is used to store water for flood control, irrigation of 6,600 acres, and recreation. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2,154.90 ft July 2, 1951, July 4, 5, 1957, contents, 269,400 acre-ft; minimum elevation since irrigation pool was first filled, 2,100.29 ft Apr. 27, 1982, contents, 21,420 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2,103.05 ft May 24, contents, 26,120 acre-ft; minimum, 2,100.61 ft Sept. 29, 30, contents, 21,930 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

| | | | |
|---|---|---|---|
| 2,100 | 20,930 | 2,103 | 26,030 |
| 2,101 | 22,570 | 2,104 | 27,850 |
| 2,102 | 24,270 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2101.29 | 2101.01 | 2101.00 | 2101.03 | 2101.13 | 2101.07 | 2101.25 | 2102.31 | 2102.99 | 2102.60 | 2101.75 | 2101.30 |
| 2 | 2101.27 | 2101.01 | 2101.00 | 2101.03 | 2101.16 | 2101.06 | 2101.42 | 2102.41 | 2102.94 | 2102.59 | 2101.75 | 2101.26 |
| 3 | 2101.23 | 2101.02 | 2101.02 | 2101.04 | 2101.14 | 2101.10 | 2101.44 | 2102.48 | 2102.93 | 2102.59 | 2101.73 | 2101.24 |
| 4 | 2101.20 | 2101.02 | 2101.03 | 2101.05 | 2101.15 | 2101.09 | 2101.45 | 2102.53 | 2102.95 | 2102.55 | 2101.75 | 2101.20 |
| 5 | 2101.19 | 2101.01 | 2101.03 | 2101.05 | 2101.13 | 2101.09 | 2101.55 | 2102.56 | 2102.96 | 2102.55 | 2101.75 | 2101.21 |
| 6 | 2101.17 | 2101.02 | 2101.03 | 2101.06 | 2101.14 | 2101.09 | 2101.61 | 2102.61 | 2102.96 | 2102.52 | 2101.75 | 2101.20 |
| 7 | 2101.16 | 2101.02 | 2101.04 | 2101.06 | 2101.15 | 2101.08 | 2101.65 | 2102.62 | 2102.96 | 2102.50 | 2101.72 | 2101.11 |
| 8 | 2101.12 | 2101.03 | 2101.03 | 2101.06 | 2101.16 | 2101.05 | 2101.65 | 2102.65 | 2102.92 | 2102.49 | 2101.69 | 2101.09 |
| 9 | 2101.12 | 2101.00 | 2101.03 | 2101.06 | 2101.16 | 2101.04 | 2101.66 | 2102.67 | 2102.91 | 2102.44 | 2101.68 | 2101.07 |
| 10 | 2101.15 | 2100.97 | 2101.03 | 2101.05 | 2101.17 | 2101.06 | 2101.72 | 2102.73 | 2102.85 | 2102.40 | 2101.66 | 2101.05 |
| 11 | 2101.11 | 2100.95 | 2101.02 | 2101.05 | 2101.18 | 2101.07 | 2101.79 | 2102.77 | 2102.90 | 2102.35 | 2101.63 | 2101.06 |
| 12 | 2101.06 | 2100.96 | 2101.03 | 2101.05 | 2101.17 | 2101.09 | 2101.79 | 2102.80 | 2102.90 | 2102.33 | 2101.60 | 2101.05 |
| 13 | 2101.05 | 2100.98 | 2101.03 | 2101.05 | 2101.16 | 2101.11 | 2101.79 | 2102.82 | 2102.88 | 2102.31 | 2101.58 | 2101.01 |
| 14 | 2101.06 | 2100.96 | 2101.03 | 2101.05 | 2101.17 | 2101.16 | 2101.78 | 2102.81 | 2102.87 | 2102.29 | 2101.55 | 2100.96 |
| 15 | 2101.05 | 2100.95 | 2101.03 | 2101.07 | 2101.17 | 2101.12 | 2101.78 | 2102.81 | 2102.86 | 2102.25 | 2101.53 | 2100.90 |
| 16 | 2101.02 | 2100.95 | 2101.02 | 2101.08 | 2101.14 | 2101.11 | 2101.74 | 2102.84 | 2102.86 | 2102.24 | 2101.50 | 2100.88 |
| 17 | 2101.01 | 2100.95 | 2101.00 | 2101.08 | 2101.10 | 2101.10 | 2101.75 | 2102.83 | 2102.85 | 2102.21 | 2101.49 | 2100.85 |
| 18 | 2101.03 | 2100.94 | 2101.00 | 2101.09 | 2101.15 | 2101.19 | 2101.74 | 2102.83 | 2102.82 | 2102.20 | 2101.43 | 2100.88 |
| 19 | 2101.05 | 2101.01 | 2101.00 | 2101.09 | 2101.13 | 2101.20 | 2101.74 | 2102.83 | 2102.82 | 2102.17 | 2101.40 | 2100.89 |
| 20 | 2101.01 | 2101.00 | 2101.01 | 2101.09 | 2101.14 | 2101.22 | 2101.86 | 2102.85 | 2102.80 | 2102.13 | 2101.45 | 2100.89 |
| 21 | 2101.01 | 2100.99 | 2101.01 | 2101.09 | 2101.14 | 2101.21 | 2101.91 | 2102.94 | 2102.80 | 2102.10 | 2101.50 | 2100.89 |
| 22 | 2100.99 | 2100.98 | 2101.01 | 2101.09 | 2101.15 | 2101.19 | 2101.93 | 2102.99 | 2102.77 | 2102.05 | 2101.49 | 2100.89 |
| 23 | 2100.99 | 2100.97 | 2101.01 | 2101.09 | 2101.14 | 2101.22 | 2101.99 | 2103.01 | 2102.72 | 2102.03 | 2101.47 | 2100.89 |
| 24 | 2100.97 | 2100.97 | 2101.00 | 2101.10 | 2101.12 | 2101.25 | 2102.07 | 2103.04 | 2102.70 | 2102.00 | 2101.43 | 2100.89 |
| 25 | 2100.97 | 2100.97 | 2101.00 | 2101.10 | 2101.10 | 2101.24 | 2102.13 | 2103.01 | 2102.75 | 2101.96 | 2101.43 | 2100.72 |
| 26 | 2100.96 | 2101.01 | 2101.00 | 2101.10 | 2101.09 | 2101.28 | 2102.15 | 2103.00 | 2102.74 | 2101.93 | 2101.42 | 2100.72 |
| 27 | 2100.98 | 2101.03 | 2101.03 | 2101.11 | 2101.07 | 2101.25 | 2102.13 | 2103.01 | 2102.70 | 2101.90 | 2101.41 | 2100.72 |
| 28 | 2100.95 | 2101.03 | 2101.02 | 2101.13 | 2101.06 | 2101.24 | 2102.12 | 2102.95 | 2102.69 | 2101.87 | 2101.41 | 2100.64 |
| 29 | 2101.00 | 2101.02 | 2101.02 | 2101.13 | 2101.06 | 2101.24 | 2102.21 | 2102.95 | 2102.66 | 2101.84 | 2101.39 | 2100.61 |
| 30 | 2101.00 | 2101.01 | 2101.02 | 2101.14 | --- | 2101.24 | 2102.23 | 2102.95 | 2102.63 | 2101.82 | 2101.33 | 2100.61 |
| 31 | 2101.00 | --- | 2101.03 | 2101.14 | --- | 2101.25 | --- | 2102.97 | --- | 2101.80 | 2101.32 | --- |
| MEAN | 2101.07 | 2100.99 | 2101.02 | 2101.08 | 2101.14 | 2101.15 | 2101.80 | 2102.79 | 2102.84 | 2102.23 | 2101.55 | 2100.95 |
| MAX | 2101.29 | 2101.03 | 2101.04 | 2101.14 | 2101.18 | 2101.28 | 2102.23 | 2103.04 | 2102.99 | 2102.60 | 2101.75 | 2101.30 |
| MIN | 2100.95 | 2100.94 | 2101.00 | 2101.03 | 2101.06 | 2101.04 | 2101.25 | 2102.31 | 2102.63 | 2101.80 | 2101.32 | 2100.61 |
| (+) | 22,570 | 22,590 | 22,620 | 22,810 | 22,670 | 23,000 | 24,670 | 25,980 | 25,370 | 23,930 | 23,110 | 21,930 |
| (#) | -490 | +20 | +30 | +190 | -140 | +330 | +1,670 | +1,310 | -610 | -1,440 | -820 | -1,180 |

CAL YR 1983 ........................ (#) -4,630
WTR YR 1984 ........................ (#) -1,130

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

BEST COPY AVAILABLE

## 06862000 SMOKY HILL RIVER AT CEDAR BLUFF DAM, KS

LOCATION.--Lat 38 deg 47 min 30 sec, long 99 deg 43 min 20 sec, in NW1/4 NE1/4 sec.1, T.15 S., R.22 W., Trego County, Hydrologic Unit 10260003, on right bank 0.2 mi downstream from Cedar bluff Dam, 14 mi southwest of of Ellis, and at mile 333.4.

DRAINAGE AREA.--5,530 sq mi, approximately.

PERIOD OF RECORD.--February 1952 to current year.

REVISED RECORDS.--WSP 1510: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,059.14 ft National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records fair. Flow completely regulated by Cedar Bluff Reservoir (see sta 06861500). Prior to Nov. 21, 1962, fish hatchery effluent was included in gaged flow.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 cu ft per sec July 5, 1957, gage height, 4.89 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--No flow entire year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |

CAL YR 1983 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00
WTR YR 1984 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00

BEST COPY AVAILABLE

## 06862700 SMOKY HILL RIVER NEAR SCHOENCHEN, KS

LOCATION.--Lat 38 deg 43 min 30 sec, long 99 deg 23 min 30 sec, in NW1/4 NW1/4 sec.25, T.15 S., R.19 W., Ellis County, Hydrologic Unit 10260006, on left bank, 3.0 mi northeast of Schoenchen, and at mile 312.3.

DRAINAGE AREA.--5,750 sq mi.

PERIOD OF RECORD.--July 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,940 ft, from topographic map.

REMARKS.--Records poor. Flow mostly regulated since 1950 by Cedar Bluff Reservoir 21.4 mi upstream (see sta 06861500). Flow of stream also affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--20 years, 27.0 cu ft per sec, 19,560 acre ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,400 cu ft per sec June 14, 1970, gage height, 16.17 ft; no flow at times in 1983, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 542 cu ft per sec Apr. 21, gage height, 6.71 ft; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .05 | 7.0 | 9.7 | 11 | 32 | 5.2 | 2.5 | .05 | .00 |
| 2 | .00 | .00 | .00 | .05 | 6.3 | 9.2 | 76 | 23 | 18 | 3.0 | .04 | .00 |
| 3 | .00 | .00 | .01 | .06 | 5.6 | 9.5 | 72 | 19 | 7.4 | 3.2 | .03 | .00 |
| 4 | .00 | .00 | .01 | .08 | 4.9 | 11 | 37 | 16 | 5.7 | 47 | .04 | .00 |
| 5 | .00 | .00 | .00 | .10 | 4.5 | 11 | 24 | 14 | 5.0 | 34 | .13 | .00 |
| 6 | .00 | .00 | .00 | .50 | 4.2 | 11 | 18 | 17 | 4.8 | 19 | .04 | .00 |
| 7 | .00 | .00 | .01 | 2.0 | 4.4 | 11 | 14 | 37 | 3.5 | 13 | .00 | .00 |
| 8 | .00 | .00 | .02 | 10 | 4.2 | 11 | 12 | 22 | 2.5 | 11 | .00 | .00 |
| 9 | .00 | .00 | .03 | 10 | 4.3 | 11 | 10 | 15 | 2.3 | 8.2 | .00 | .00 |
| 10 | .01 | .00 | .04 | 5.5 | 4.5 | 11 | 17 | 12 | 2.3 | 5.7 | .00 | .00 |
| 11 | .01 | .00 | .06 | 4.5 | 4.6 | 12 | 26 | 11 | 2.3 | 4.5 | .00 | .00 |
| 12 | .02 | .00 | .05 | 3.7 | 4.7 | 14 | 19 | 9.7 | 2.4 | 4.5 | .00 | .00 |
| 13 | .01 | .00 | .07 | 2.3 | 6.1 | 14 | 13 | 8.5 | 2.6 | 4.5 | .00 | .00 |
| 14 | .01 | .00 | .10 | 1.7 | 6.6 | 14 | 9.9 | 7.7 | 2.8 | 4.0 | .00 | .00 |
| 15 | .01 | .00 | .06 | 1.5 | 6.5 | 13 | 8.9 | 7.5 | 3.0 | 3.1 | .00 | .00 |
| 16 | .01 | .00 | .05 | .90 | 6.7 | 13 | 8.5 | 7.2 | 3.2 | 3.3 | .00 | .00 |
| 17 | .01 | .00 | .04 | .40 | 6.4 | 15 | 7.9 | 6.7 | 2.8 | 2.5 | .00 | .00 |
| 18 | .02 | .00 | .03 | .20 | 8.1 | 16 | 10 | 7.6 | 2.6 | 2.1 | .00 | .00 |
| 19 | .01 | .00 | .03 | .15 | 7.6 | 16 | 11 | 9.6 | 2.3 | 1.8 | .00 | .00 |
| 20 | .00 | .00 | .03 | .15 | 7.2 | 18 | 12 | 8.3 | 2.3 | 2.0 | .00 | .00 |
| 21 | .00 | .00 | .03 | .15 | 7.4 | 29 | 292 | 7.7 | 2.6 | 1.9 | .00 | .00 |
| 22 | .00 | .00 | .03 | .22 | 7.9 | 15 | 105 | 7.3 | 2.5 | 1.5 | .00 | .00 |
| 23 | .00 | .00 | .03 | .28 | 8.2 | 12 | 46 | 9.4 | 2.5 | 1.3 | .00 | .00 |
| 24 | .00 | .00 | .03 | .35 | 8.1 | 12 | 31 | 5.9 | 2.1 | 1.1 | .00 | .00 |
| 25 | .00 | .00 | .03 | .71 | 8.7 | 14 | 24 | 4.5 | 2.3 | .86 | .00 | .00 |
| 26 | .00 | .00 | .04 | 1.0 | 8.7 | 13 | 20 | 4.7 | 2.5 | 1.5 | .00 | .00 |
| 27 | .00 | .00 | .04 | 1.5 | 8.9 | 11 | 16 | 4.4 | 2.5 | 1.5 | .00 | .00 |
| 28 | .00 | .00 | .05 | 2.5 | 7.6 | 11 | 14 | 5.0 | 2.5 | 1.2 | .00 | .00 |
| 29 | .00 | .00 | .04 | 3.5 | 8.7 | 11 | 32 | 5.0 | 2.3 | .65 | .00 | .00 |
| 30 | .00 | .00 | .04 | 5.0 | --- | 9.9 | 57 | 4.8 | 2.5 | .31 | .00 | .00 |
| 31 | .00 | --- | .04 | 6.0 | --- | 11 | --- | 4.5 | --- | .10 | .00 | --- |
| TOTAL | .12 | .00 | 1.04 | 65.05 | 188.5 | 400.6 | 1055.2 | 353.8 | 108.1 | 191.12 | .33 | .00 |
| MEAN | .004 | .000 | .034 | 2.10 | 6.50 | 12.9 | 35.2 | 11.4 | 3.60 | 6.17 | .011 | .000 |
| MAX | .02 | .00 | .10 | 10 | 8.9 | 29 | 292 | 37 | 18 | 47 | .13 | .00 |
| MIN | .00 | .00 | .00 | .05 | 4.2 | 9.2 | 7.9 | 4.4 | 2.1 | .10 | .00 | .00 |
| AC-FT | .2 | .00 | 2.1 | 129 | 374 | 795 | 2090 | 702 | 214 | 379 | .7 | .00 |

CAL YR 1983 TOTAL 1050.66 MEAN 2.88 MAX 10 MIN .00 AC-FT 2080
WTR YR 1984 TOTAL 2363.96 MEAN 6.46 MAX 292 MIN .00 AC-FT 4690

## 06862850 SMOKY HILL RIVER BELOW SCHOENCHEN, KS

LOCATION.--Lat 38 deg 42 min 46 sec, long 99 deg 17 min 30 sec, in SW1/4 SW1/4 SE1/4 sec.26, T.15 S., R.19 W., Ellis County, Hydrologic Unit 10260006, on right bank, 1.5 mi upstream from Big Timber Creek, and 2.1 mi east of Schoenchen and at mile 304.9.

DRAINAGE AREA.--5,810 sq mi.

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,900 ft, from topographic map.

REMARKS.--Records fair. Flow mostly regulated since 1950 by Cedar Bluff Reservoir 28.5 mi upstream (see sta 06861500). Flow of stream also affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,460 cu ft per sec Mar. 19, 1982, gage height, 7.42 ft; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 cu ft per sec Apr. 21, gage height, 6.50 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .01 | 53 | 4.1 | .04 | .01 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | 8.8 | 34 | 15 | .03 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | 177 | 24 | 15 | .03 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | 36 | 19 | 11 | 21 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | 20 | 17 | 7.8 | 41 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | 15 | 18 | 5.4 | 23 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | 12 | 35 | 5.3 | 13 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | 8.7 | 29 | 3.0 | 8.0 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | 6.4 | 21 | 1.7 | 3.8 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | 7.8 | 17 | .94 | 1.2 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 13 | .80 | .29 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | 19 | 11 | .52 | .19 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | 11 | 10 | .37 | .11 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | 6.9 | 9.4 | .28 | .09 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | 5.0 | 9.2 | .23 | .04 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | 4.3 | 8.8 | .16 | .12 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | 4.0 | 8.2 | .14 | .09 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | 3.6 | 8.1 | .10 | .06 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | 2.9 | 11 | .07 | .05 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | 4.7 | 8.8 | .06 | .03 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | 1.0 | 444 | 8.1 | .06 | .02 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .46 | 496 | 7.2 | .05 | .02 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .03 | 115 | 6.2 | .04 | .01 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .03 | 54 | 6.6 | .06 | .01 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .03 | 34 | 5.7 | .06 | .01 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .06 | 24 | 5.3 | .05 | .01 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .04 | 19 | 6.1 | .05 | .02 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .02 | 18 | 5.1 | .05 | .02 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .01 | 23 | 5.3 | .04 | .02 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | 84 | 4.7 | .04 | .02 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 4.8 | --- | .02 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | 1.65 | 1682.11 | 429.6 | 73.60 | 112.37 | .01 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .053 | 56.1 | 13.9 | 2.45 | 3.62 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | 1.0 | 496 | 53 | 15 | 41 | .01 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .01 | 4.7 | .04 | .01 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | 3 | 3340 | 852 | 146 | 223 | .02 | .00 |

CAL YR 1983 TOTAL 687.24 MEAN 1.88 MAX 14 MIN .00 AC-FT 1360
WTR YR 1984 TOTAL 2299.37 MEAN 6.28 MAX 496 MIN .00 AC-FT 4560

BEST COPY AVAILABLE

## 06863500 BIG CREEK NEAR HAYS, KS

LOCATION.--Lat 38 deg 48 min 45 sec, long 99 deg 15 min 14 sec, in NW1/4 NW1/4 NE1/4 sec.30, T.14 S., R.17 W., Ellis County, Hydrologic Unit 10260007, on left high bank near downstream side of county highway bridge, 0.6 mi east of Munjor, 6.0 mi southeast of Hays, and at mile 31.7.

DRAINAGE AREA.--594 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1946 to current year.

REVISED RECORDS.--WSP 1340: 1947-48(P).

GAGE.--Water-stage recorder. Altitude of gage is 1,915 ft, from topographic map. Prior to Nov. 20, 1947, nonrecording gage, and Nov. 20, 1947, to Aug. 22, 1965, water-stage recorder and concrete control at site 12.5 mi upstream at datum 1,955.13 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Natural flow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--38 years, 34.9 cu ft per sec, 25,290 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 cu ft per sec June 17, 1957, gage height, 22.07 ft, site and datum then in use; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,160 cu ft per sec June 22, gage height, 17.38 ft, no other peak above base of 700 cu ft per sec; minimum daily, 0.13 cu ft per sec July 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.5 | 2.0 | 2.0 | 1.9 | 6.3 | 7.4 | 12 | 23 | 4.6 | 6.2 | 2.3 | 2.1 |
| 2 | 6.9 | 2.2 | 2.1 | 2.1 | 5.7 | 7.6 | 72 | 23 | 12 | 5.4 | 2.4 | 2.6 |
| 3 | 6.8 | 2.6 | 1.9 | 2.3 | 5.3 | 7.9 | 38 | 22 | 14 | 6.1 | 2.2 | 1.6 |
| 4 | 2.4 | 2.1 | 2.2 | 2.4 | 5.2 | 14 | 24 | 23 | 7.1 | 5.9 | 1.6 | 1.9 |
| 5 | 6.1 | 2.4 | 2.2 | 3.5 | 4.8 | 8.3 | 13 | 20 | 5.5 | 4.9 | 7.3 | 2.8 |
| 6 | 5.9 | 2.6 | 2.1 | 4.5 | 4.9 | 6.0 | 11 | 22 | 7.9 | 7.6 | 2.4 | 1.6 |
| 7 | 5.8 | 2.9 | 2.1 | 6.0 | 5.3 | 6.1 | 9.6 | 32 | 5.5 | 14 | 2.1 | 1.5 |
| 8 | 5.0 | 2.5 | 2.2 | 4.5 | 5.0 | 6.5 | 9.1 | 16 | 4.4 | 13 | 2.2 | 2.0 |
| 9 | 3.5 | 3.1 | 2.2 | 4.0 | 4.7 | 6.8 | 13 | 15 | 2.0 | 6.9 | 4.0 | 2.0 |
| 10 | 2.3 | 3.4 | 2.2 | 1.8 | 4.5 | 7.1 | 17 | 14 | 2.2 | 2.5 | 5.7 | 1.4 |
| 11 | 2.0 | 2.8 | 2.3 | 1.4 | 4.4 | 7.4 | 23 | 13 | 2.0 | 2.0 | 6.1 | 1.4 |
| 12 | 1.6 | 2.4 | 2.3 | 1.6 | 4.5 | 11 | 12 | 12 | 2.9 | 2.9 | 6.3 | 1.2 |
| 13 | 1.7 | 2.3 | 2.4 | 1.6 | 4.4 | 15 | 11 | 12 | 4.1 | 2.4 | 5.5 | 1.0 |
| 14 | 1.4 | 2.3 | 2.2 | 1.8 | 4.4 | 8.7 | 11 | 11 | 2.9 | 2.9 | 5.7 | 1.8 |
| 15 | 1.7 | 2.0 | 1.9 | 1.4 | 4.5 | 8.0 | 10 | 11 | 2.6 | 3.2 | 5.7 | .59 |
| 16 | 1.6 | 2.4 | 2.1 | 1.5 | 4.6 | 8.4 | 9.6 | 10 | 2.3 | 3.3 | 5.5 | .51 |
| 17 | 1.9 | 2.4 | 1.9 | 1.7 | 4.9 | 15 | 10 | 9.3 | 2.2 | 3.8 | 5.5 | .37 |
| 18 | 2.2 | 2.3 | 1.5 | 1.9 | 6.0 | 13 | 12 | 9.0 | 2.1 | 3.0 | 5.9 | .50 |
| 19 | 2.9 | 2.8 | 1.3 | 2.1 | 5.2 | 10 | 13 | 11 | 1.4 | 2.2 | 6.7 | .51 |
| 20 | 4.3 | 4.2 | 1.4 | 2.1 | 4.9 | 13 | 14 | 14 | 2.1 | 2.2 | 7.3 | .57 |
| 21 | 2.4 | 2.5 | 1.5 | 2.2 | 4.5 | 27 | 237 | 7.9 | 2.4 | .98 | 30 | .60 |
| 22 | 2.0 | 2.0 | 1.6 | 2.4 | 4.9 | 11 | 50 | 7.7 | 1350 | .91 | 6.7 | 1.2 |
| 23 | 2.1 | 2.0 | 1.7 | 2.8 | 4.8 | 8.4 | 31 | 7.7 | 800 | .71 | 1.6 | 2.0 |
| 24 | 2.2 | 1.8 | 1.6 | 3.2 | 5.2 | 9.0 | 54 | 6.7 | 88 | .13 | 2.4 | 2.6 |
| 25 | 2.1 | 1.7 | 1.5 | 3.4 | 5.4 | 11 | 36 | 6.5 | 36 | 1.5 | 2.8 | 2.7 |
| 26 | 2.6 | 1.5 | 1.4 | 5.1 | 5.9 | 8.5 | 27 | 6.1 | 292 | 1.9 | 2.9 | 2.4 |
| 27 | 2.5 | 2.3 | 1.5 | 24 | 6.6 | 10 | 21 | 5.7 | 30 | 2.3 | 2.2 | 2.9 |
| 28 | 2.4 | 2.2 | 1.6 | 31 | 6.6 | 8.0 | 17 | 4.8 | 13 | 2.6 | 1.7 | 2.5 |
| 29 | 3.4 | 2.0 | 1.7 | 17 | 7.1 | 8.1 | 27 | 5.2 | 8.9 | 2.5 | 1.9 | 2.3 |
| 30 | 8.4 | 2.4 | 1.8 | 9.0 | --- | 8.1 | 61 | 5.0 | 7.3 | 2.6 | 2.2 | 2.2 |
| 31 | 1.4 | --- | 1.8 | 7.1 | --- | 8.7 | --- | 4.6 | --- | 2.9 | 2.3 | --- |
| TOTAL | 104.5 | 72.1 | 56.2 | 157.3 | 153.5 | 305.0 | 905.3 | 390.2 | 2717.4 | 119.43 | 149.1 | 49.35 |
| MEAN | 3.37 | 2.40 | 1.88 | 5.07 | 5.29 | 9.84 | 30.2 | 12.6 | 90.6 | 3.85 | 4.81 | 1.65 |
| MAX | 8.4 | 4.2 | 2.4 | 31 | 8.2 | 27 | 237 | 32 | 1350 | 14 | 30 | 2.9 |
| MIN | 1.4 | 1.5 | 1.3 | 1.4 | 4.4 | 6.0 | 9.1 | 4.6 | 1.4 | .13 | 1.6 | .37 |
| AC-FT | 207 | 143 | 115 | 312 | 304 | 605 | 1800 | 774 | 5390 | 237 | 296 | 98 |

CAL YR 1983 TOTAL 1466.40 MEAN 4.02 MAX 38 MIN .70 AC-FT 2910
WTR YR 1984 TOTAL 5181.38 MEAN 14.2 MAX 1350 MIN .13 AC-FT 10280

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-70, 1976 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

## 06863900 NORTH FORK BIG CREEK NEAR VICTORIA, KS

LOCATION.--Lat 38 deg 53 min 12 sec, long 99 deg 12 min 21 sec, in SW1/4 SW1/4 SW1/4 sec.27, T.13 S., R.17 W., Ellis County, Hydrologic Unit 10260007, on right bank at downstream side of highway bridge, 3.5 mi northwest of Victoria, and about 18 mi upstream from mouth.

DRAINAGE AREA.--54 sq mi, approximately.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1962 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,940 ft, National Geodetic Vertical Datum of 1929 (from topographic map).

REMARKS.--Records fair.

AVERAGE DISCHARGE.--22 years, 3.37 cu ft per sec, 2,440 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,400 cu ft per sec Aug. 9, 1974, gage height, 21.34 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,470 cu ft per sec June 22, gage height, 13.12 ft, no other peak above base of 100 cu ft per sec; no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | 3.7 | .00 | .00 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .68 | .15 | .00 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | 1.1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .08 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.9 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.4 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .04 | .00 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | 9.6 | .00 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 556 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 276 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 35 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 13 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .65 | .00 | .00 | .00 | .00 | 53 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | 1.1 | .00 | .00 | .00 | .00 | 1.6 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | 2.93 | .00 | .00 | 14.02 | .15 | 934.60 | .00 | 5.30 | .00 |
| MEAN | .000 | .000 | .000 | .095 | .000 | .000 | .47 | .005 | 31.2 | .000 | .17 | .000 |
| MAX | .00 | .00 | .00 | 1.1 | .00 | .00 | 9.6 | .15 | 556 | .00 | 2.9 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | 5.8 | .00 | .00 | 28 | .3 | 1850 | .00 | 11 | .00 |

CAL YR 1983 TOTAL 1.50 MEAN .004 MAX 1.5 MIN .00 AC-FT 3.0
WTR YR 1984 TOTAL 957.00 MEAN 2.61 MAX 556 MIN .00 AC-FT 1900

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

## 06864050 SMOKY HILL RIVER NEAR BUNKER HILL, KS

LOCATION.--Lat 38 deg 47 min 38 sec, long 98 deg 46 min 50 sec, in NW1/4 SW1/4 NW1/4 sec.33, T.14 S., R.13 W., Russell County, Hydrologic Unit 10260006, at downstream side of county highway bridge, 0.5 mi upstream from Sellens Creek, 6.5 mi southwest of Bunker Hill, and at mile 261.6.

DRAINAGE AREA.--7,075 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1974, published as "near Russell."

REVISED RECORDS.--WSP 1340: 1941-42(M), 1944-45(M), 1950(P).

GAGE.--Water-stage recorder. Altitude of gage is 1,690 ft, from topographic map. Prior to Sept. 11, 1940, nonrecording gage and Sept. 11, 1940, to Sept. 30, 1974, water-stage recorder at site 4.7 mi upstream at datum, 1,669.05 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Flow moderately regulated since 1950 by Cedar Bluff Reservoir 72.1 mi upstream (see sta 06861500). Natural flow of stream affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--45 years, 176 cu ft per sec, 127,500 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,500 cu ft per sec May 23, 1951, gage height, 23.86 ft, site and datum then in use; no flow at times in 1940, 1943, 1955-57.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1938, reached a stage of about 29.0 ft, from floodmarks, discharge, about 70,000 cu ft per sec, from rating curve extended above 37,500 cu ft per sec, site and datum of 1939-74.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,580 cu ft per sec June 24, gage height, 7.69 ft; minimum, 0.28 cu ft per sec Oct 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .28 | 1.1 | 7.2 | 2.3 | 90 | 9.9 | 16 | 545 | 25 | 47 | 4.8 | 2.2 |
| 2 | .29 | .94 | 5.1 | 2.5 | 74 | 8.8 | 45 | 284 | 23 | 37 | 4.5 | 4.4 |
| 3 | .31 | 1.9 | 8.5 | 2.8 | 48 | 8.9 | 74 | 191 | 25 | 31 | 4.2 | 3.3 |
| 4 | .30 | 3.9 | 7.8 | 3.4 | 39 | 15 | 112 | 164 | 23 | 28 | 4.0 | 2.4 |
| 5 | .30 | 2.9 | 4.9 | 4.0 | 31 | 12 | 144 | 142 | 22 | 25 | 4.2 | 2.3 |
| 6 | .39 | 2.7 | 7.4 | 5.0 | 26 | 11 | 97 | 30 | 27 | 23 | 4.5 | 2.0 |
| 7 | .43 | 2.3 | 7.9 | 6.0 | 27 | 11 | 70 | 150 | 21 | 21 | 5.0 | 2.0 |
| 8 | .51 | 2.2 | 8.4 | 8.0 | 22 | 12 | 52 | 120 | 17 | 18 | 4.8 | 2.1 |
| 9 | .48 | 2.2 | 6.5 | 11 | 20 | 12 | 43 | 110 | 17 | 17 | 4.8 | 1.8 |
| 10 | .62 | 2.4 | 4.9 | 15 | 19 | 10 | 38 | 100 | 16 | 14 | 4.8 | 1.6 |
| 11 | 1.3 | 2.3 | 4.7 | 13 | 17 | 9.9 | 41 | 90 | 15 | 12 | 5.0 | 1.5 |
| 12 | .62 | 2.1 | 4.7 | 12 | 15 | 14 | 43 | 90 | 14 | 12 | 4.8 | 1.4 |
| 13 | .56 | 2.2 | 4.5 | 11 | 14 | 14 | 47 | 90 | 19 | 11 | 4.0 | 1.3 |
| 14 | .52 | 2.3 | 4.5 | 11 | 13 | 12 | 45 | 80 | 15 | 10 | 3.0 | 1.5 |
| 15 | .50 | 2.5 | 4.0 | 10 | 12 | 11 | 34 | 80 | 13 | 9.0 | 2.5 | 1.4 |
| 16 | .48 | 2.5 | 4.0 | 10 | 12 | 13 | 26 | 75 | 11 | 22 | 2.3 | 1.4 |
| 17 | .46 | 2.4 | 4.0 | 9.0 | 12 | 24 | 23 | 70 | 11 | 38 | 2.2 | 1.4 |
| 18 | .46 | 2.6 | 3.5 | 9.0 | 14 | 19 | 19 | 60 | 10 | 21 | 2.0 | 1.3 |
| 19 | .70 | 2.7 | 3.5 | 8.0 | 15 | 20 | 17 | 60 | 9.9 | 16 | 2.0 | 1.3 |
| 20 | 1.3 | 6.1 | 3.5 | 8.0 | 12 | 26 | 20 | 75 | 9.4 | 14 | 2.1 | 1.2 |
| 21 | .83 | 4.4 | 3.0 | 6.0 | 12 | 46 | 224 | 55 | 8.6 | 10 | 16 | 1.2 |
| 22 | .86 | 3.6 | 3.0 | 5.0 | 11 | 31 | 846 | 50 | 8.4 | 9.0 | 13 | 1.2 |
| 23 | .61 | 3.6 | 3.0 | 6.0 | 11 | 28 | 662 | 45 | 423 | 7.1 | 7.3 | 1.2 |
| 24 | .58 | 3.6 | 2.5 | 7.0 | 11 | 43 | 292 | 45 | 1150 | 6.8 | 9.4 | 1.1 |
| 25 | .55 | 3.6 | 2.5 | 9.0 | 10 | 33 | 193 | 40 | 312 | 6.2 | 8.8 | 1.1 |
| 26 | .54 | 4.2 | 2.2 | 15 | 9.8 | 26 | 146 | 35 | 228 | 5.9 | 6.3 | 1.2 |
| 27 | .60 | 5.2 | 2.0 | 25 | 12 | 22 | 100 | 31 | 570 | 6.2 | 4.7 | 1.7 |
| 28 | .61 | 11 | 2.0 | 40 | 10 | 22 | 76 | 34 | 224 | 6.2 | 3.7 | 1.6 |
| 29 | .90 | 5.7 | 1.8 | 66 | 9.6 | 21 | 260 | 33 | 109 | 6.2 | 2.7 | 1.5 |
| 30 | 5.6 | 6.1 | 1.8 | 110 | --- | 17 | 1220 | 30 | 64 | 5.3 | 2.4 | 1.6 |
| 31 | 1.5 | --- | 2.0 | 100 | --- | 17 | --- | 28 | --- | 5.3 | 2.3 | --- |
| TOTAL | 24.04 | 101.14 | 135.3 | 550.0 | 628.4 | 579.5 | 5025 | 3032 | 3440.3 | 500.2 | 152.1 | 51.2 |
| MEAN | .78 | 3.37 | 4.36 | 17.7 | 21.7 | 18.7 | 168 | 97.8 | 115 | 16.1 | 4.91 | 1.71 |
| MAX | 5.6 | 11 | 8.5 | 110 | 90 | 46 | 1220 | 545 | 1150 | 47 | 16 | 4.4 |
| MIN | .28 | .94 | 1.8 | 2.3 | 9.6 | 8.8 | 16 | 28 | 8.4 | 5.3 | 2.0 | 1.1 |
| AC-FT | 48 | 201 | 268 | 1090 | 1250 | 1150 | 9970 | 6010 | 6820 | 992 | 302 | 102 |

CAL YR 1983 TOTAL 3683.06 MEAN 10.1 MAX 110 MIN .26 AC-FT 7310
WTR YR 1984 TOTAL 14219.18 MEAN 38.9 MAX 1220 MIN .28 AC-FT 28200

BEST COPY AVAILABLE

## 06864500 SMOKY HILL RIVER AT ELLSWORTH, KS

LOCATION.--Lat 38 deg 43 min 36 sec, long 98 deg 14 min 00 sec, in SW1/4 SW1/4 SE1/4 sec.20, T.15 S., R.8 W., Ellsworth County, Hydrologic Unit 10260006, at downstream side of bridge on State Highway 14 in Ellsworth, 2.0 mi downstream from Turkey Creek, and at mile 213.7.

DRAINAGE AREA.--7,580 sq mi, approximately.

PERIOD OF RECORD.--April 1895 to October 1905, July 1918 to July 1925, August 1928 to current year.

REVISED RECORDS.--WSP 796-B: 1903. WSP 806: Drainage area. WSP 1176: 1923. WSP 1440: 1895-1905, 1919, 1921, 1929-30(M), 1936-37(M).

GAGE.--Water-stage recorder. Datum of gage is 1,509.02 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 31, 1905, nonrecording gage at present site at datum 1.61 ft higher. July 23, 1918, to July 4, 1925, and Aug. 1, 1925, to Nov. 29, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Flow moderately regulated since 1950 by Cedar Bluff Reservoir 120 mi upstream (see sta 06861500). Flow also affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--72 years (water years 1896-1905, 1919-24, 1929-84), 242 cu ft per sec, 175,300 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,000 cu ft per sec June 1, 1938, gage height, 27.2 ft, from floodmarks; no flow for part of day Sept. 28, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1927 reached a stage of 25.7 ft, from floodmarks, discharge, 44,800 cu ft per sec.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,560 cu ft per sec Apr. 30, gage height, 8.18 ft; minimum, 2.1 cu ft per sec Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.7 | 12 | 10 | 9.0 | 262 | 19 | 43 | 1150 | 54 | 145 | 11 | 7.1 |
| 2 | 3.0 | 11 | 11 | 9.5 | 228 | 19 | 134 | 621 | 58 | 106 | 11 | 23 |
| 3 | 3.0 | 12 | 12 | 10 | 168 | 18 | 312 | 448 | 64 | 81 | 11 | 11 |
| 4 | 2.7 | 11 | 12 | 11 | 112 | 24 | 430 | 345 | 66 | 68 | 21 | 10 |
| 5 | 2.4 | 11 | 11 | 12 | 81 | 23 | 320 | 285 | 56 | 59 | 14 | 10 |
| 6 | 3.0 | 14 | 12 | 15 | 59 | 20 | 220 | 258 | 51 | 51 | 12 | 9.1 |
| 7 | 3.4 | 12 | 13 | 16 | 66 | 20 | 182 | 272 | 49 | 45 | 52 | 6.9 |
| 8 | 3.4 | 14 | 14 | 15 | 270 | 18 | 150 | 270 | 47 | 39 | 104 | 6.2 |
| 9 | 3.4 | 21 | 14 | 15 | 51 | 17 | 136 | 231 | 54 | 34 | 21 | 6.2 |
| 10 | 3.4 | 19 | 13 | 13 | 46 | 17 | 122 | 214 | 47 | 30 | 14 | 6.2 |
| 11 | 12 | 17 | 13 | 11 | 42 | 17 | 132 | 198 | 45 | 29 | 13 | 6.2 |
| 12 | 12 | 16 | 12 | 10 | 38 | 20 | 188 | 177 | 42 | 26 | 12 | 5.7 |
| 13 | 8.2 | 15 | 12 | [illegible] | 34 | 24 | 164 | 160 | 44 | 23 | 12 | 7.5 |
| 14 | 6.6 | 13 | 11 | 9.4 | 33 | 26 | 124 | 144 | 34 | 21 | 11 | 8.2 |
| 15 | 5.5 | 12 | 10 | 9.6 | 31 | 23 | 96 | 127 | 40 | 19 | 11 | 7.8 |
| 16 | 5.9 | 12 | 9.5 | 10 | 29 | 25 | 88 | 117 | 41 | 18 | 9.3 | 8.8 |
| 17 | 5.0 | 12 | 9.0 | 9.0 | 26 | 38 | 74 | 106 | 42 | 20 | 8.8 | 8.8 |
| 18 | 5.4 | 12 | 8.5 | 8.5 | 31 | 45 | 66 | 97 | 42 | 28 | 8.6 | 8.8 |
| 19 | 10 | 13 | 8.0 | 8.0 | 30 | 52 | 57 | 92 | 38 | 32 | 8.2 | 8.3 |
| 20 | 11 | 13 | 8.0 | 7.0 | 27 | 73 | 56 | 92 | 37 | 21 | 7.5 | 7.3 |
| 21 | 20 | 14 | 7.0 | 12 | 26 | 162 | 164 | 96 | 37 | 18 | 15 | 6.6 |
| 22 | 17 | 13 | 6.0 | 20 | 26 | 94 | 570 | 97 | 42 | 16 | 20 | 6.6 |
| 23 | 12 | 13 | 6.3 | 33 | 24 | 75 | 796 | 96 | 56 | 16 | 18 | 6.4 |
| 24 | 11 | 14 | 6.3 | 52 | 21 | 95 | 908 | 88 | 102 | 13 | 21 | 5.5 |
| 25 | 10 | 14 | 7.0 | 58 | 20 | 152 | 501 | 78 | 757 | 14 | 15 | 4.7 |
| 26 | 9.4 | 16 | 8.0 | 64 | 21 | 118 | 352 | 70 | 920 | 13 | 14 | 4.6 |
| 27 | 8.8 | 19 | 9.0 | 72 | 20 | 96 | 274 | 68 | 564 | 12 | 15 | 8.1 |
| 28 | 8.2 | 15 | 8.0 | 82 | 19 | 76 | 220 | 66 | 428 | 12 | 13 | 8.2 |
| 29 | 15 | 13 | 7.5 | 90 | 18 | 58 | 804 | 62 | 320 | 12 | 11 | 8.2 |
| 30 | 19 | 12 | 8.0 | 139 | --- | 50 | 2150 | 58 | 206 | 12 | 8.9 | 8.1 |
| 31 | 17 | --- | 8.4 | 148 | --- | 46 | --- | 56 | --- | 12 | 8.0 | --- |
| TOTAL | 259.5 | 415 | 304.5 | 986.0 | 1839 | 1559 | 9833 | 6241 | 4383 | 1045 | 531.3 | 240.1 |
| MEAN | 8.37 | 13.8 | 9.82 | 31.8 | 63.4 | 50.3 | 328 | 201 | 146 | 33.7 | 17.1 | 8.00 |
| MAX | 20 | 21 | 14 | 148 | 270 | 162 | 2150 | 1150 | 920 | 145 | 104 | 23 |
| MIN | 2.4 | 11 | 6.0 | 7.0 | 18 | 17 | 43 | 56 | 34 | 12 | 7.5 | 4.6 |
| AC-FT | 515 | 823 | 604 | 1960 | 3650 | 3090 | 19500 | 12380 | 8690 | 2070 | 1050 | 476 |

CAL YR 1983 TOTAL 9474.5 MEAN 26.0 MAX 192 MIN 2.0 AC-FT 18790
WTR YR 1984 TOTAL 27636.5 MEAN 75.5 MAX 2150 MIN 2.4 AC-FT 54820

## 06865000 KANOPOLIS LAKE NEAR KANOPOLIS, KS

LOCATION.--Lat 38 deg 36 min 25 sec, long 97 deg 58 min 02 sec, in SE1/4 NW1/4 NE1/4 sec.3, T.17 S., R.6 W., Ellsworth County, Hydrologic Unit 10260006, in control tower at dam on Smoky Hill River, 12 mi southeast of Kanopolis, 25 mi southwest of Salina, and 183.7 mi upstream from mouth.

DRAINAGE AREA.--7,857 sq mi.

PERIOD OF RECORD.--February 1948 to current year (monthly records only prior to October 1956). Prior to October 1971, published as "Kanopolis Reservoir."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam. Storage began Feb. 17, 1948, and dam was completed in same year. Capacity, 425,700 acre-ft between elevations 1,415 ft, sill of outlet gage and 1,508 ft. Crest of uncontrolled spillway is at elevation 1,507 ft. Storage capacity of 356,700 acre-ft above elevation 1,463 ft is provided for flood control. Storage capacity of 55,200 acre-ft below elevation 1,463 ft is provided for conservation and recreation. Inflow partly regulated by Cedar Bluff Reservoir (see sta 06861500). Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,506.98 ft July 14, 1951, contents, 435,100 acre-ft; minimum since conservation pool was first filled, 1,453.59 ft Jan. 5, 6, 1984, contents, 30,060 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,467.80 ft May 10, 11, contents, 75,210 acre-ft; minimum, 1,453.59 ft Jan. 5, 6, contents, 30,060 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made in 1971 by Corps of Engineers and revised in 1982)
(Used Oct. 1, 1982 to Sept. 30, 1983)

| | | | |
|---|---|---|---|
| 1,450 | 23,040 | 1,465 | 63,280 |
| 1,455 | 33,160 | 1,470 | 85,690 |
| 1,460 | 45,990 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1454.23 | 1453.71 | 1453.70 | 1453.71 | 1453.88 | 1455.04 | 1457.76 | 1466.86 | 1466.92 | 1467.52 | 1465.43 | 1464.21 |
| 2 | 1454.18 | 1453.71 | 1453.70 | 1453.71 | 1454.02 | 1455.07 | 1458.04 | 1467.29 | 1466.86 | 1467.47 | 1465.37 | 1464.22 |
| 3 | 1454.17 | 1453.71 | 1453.71 | 1453.71 | 1454.10 | 1455.07 | 1458.90 | 1467.45 | 1466.84 | 1467.41 | 1465.32 | 1464.19 |
| 4 | 1454.15 | 1453.70 | 1453.72 | 1453.70 | 1454.20 | 1455.12 | 1459.57 | 1467.56 | 1466.83 | 1467.37 | 1465.26 | 1464.14 |
| 5 | 1454.09 | 1453.68 | 1453.72 | 1453.59 | 1454.32 | 1455.20 | 1459.96 | 1467.62 | 1466.78 | 1467.31 | 1465.23 | 1464.12 |
| 6 | 1454.02 | 1453.72 | 1453.70 | 1453.60 | 1454.40 | 1455.21 | 1460.07 | 1467.71 | 1466.76 | 1467.22 | 1465.19 | 1464.03 |
| 7 | 1453.97 | 1453.71 | 1453.70 | 1453.61 | 1454.45 | 1455.24 | 1460.31 | 1467.74 | 1466.73 | 1467.14 | 1465.21 | 1463.96 |
| 8 | 1453.90 | 1453.72 | 1453.71 | 1453.63 | 1454.50 | 1455.24 | 1460.42 | 1467.79 | 1466.64 | 1467.07 | 1465.21 | 1463.95 |
| 9 | 1453.85 | 1453.78 | 1453.69 | 1453.63 | 1454.60 | 1455.26 | 1460.56 | 1467.76 | 1466.77 | 1467.00 | 1465.21 | 1463.93 |
| 10 | 1453.78 | 1453.77 | 1453.70 | 1453.63 | 1454.64 | 1455.24 | 1460.66 | 1467.80 | 1466.71 | 1466.93 | 1465.15 | 1463.90 |
| 11 | 1453.87 | 1453.75 | 1453.70 | 1453.64 | 1454.66 | 1455.24 | 1460.94 | 1467.78 | 1466.64 | 1466.86 | 1465.11 | 1463.85 |
| 12 | 1453.82 | 1453.77 | 1453.70 | 1453.67 | 1454.69 | 1455.26 | 1460.96 | 1467.78 | 1466.63 | 1466.79 | 1465.06 | 1463.82 |
| 13 | 1453.80 | 1453.75 | 1453.70 | 1453.69 | 1454.71 | 1455.26 | 1461.05 | 1467.78 | 1466.60 | 1466.71 | 1465.02 | 1463.80 |
| 14 | 1453.70 | 1453.77 | 1453.72 | 1453.69 | 1454.68 | 1455.28 | 1461.22 | 1467.73 | 1466.57 | 1466.65 | 1464.95 | 1463.76 |
| 15 | 1453.76 | 1453.76 | 1453.68 | 1453.70 | 1454.75 | 1455.31 | 1461.23 | 1467.69 | 1466.53 | 1466.57 | 1464.90 | 1463.73 |
| 16 | 1453.73 | 1453.75 | 1453.67 | 1453.71 | 1454.76 | 1455.42 | 1461.21 | 1467.67 | 1466.49 | 1466.51 | 1464.85 | 1463.69 |
| 17 | 1453.70 | 1453.74 | 1453.67 | 1453.73 | 1454.79 | 1455.58 | 1461.23 | 1467.64 | 1466.46 | 1466.44 | 1464.82 | 1463.65 |
| 18 | 1453.68 | 1453.74 | 1453.67 | 1453.73 | 1454.82 | 1455.70 | 1461.23 | 1467.59 | 1466.44 | 1466.33 | 1464.76 | 1463.65 |
| 19 | 1453.75 | 1453.73 | 1453.67 | 1453.76 | 1454.83 | 1455.77 | 1461.24 | 1467.57 | 1466.38 | 1466.26 | 1464.71 | 1463.65 |
| 20 | 1453.74 | 1453.73 | 1453.67 | 1453.75 | 1454.85 | 1456.17 | 1461.34 | 1467.52 | 1466.34 | 1466.19 | 1464.66 | 1463.64 |
| 21 | 1453.75 | 1453.72 | 1453.69 | 1453.75 | 1454.87 | 1456.39 | 1461.69 | 1467.47 | 1466.36 | 1466.10 | 1464.66 | 1463.59 |
| 22 | 1453.78 | 1453.67 | 1453.70 | 1453.75 | 1454.87 | 1456.55 | 1461.80 | 1467.45 | 1466.41 | 1466.05 | 1464.62 | 1463.58 |
| 23 | 1453.78 | 1453.70 | 1453.71 | 1453.75 | 1454.90 | 1456.71 | 1462.29 | 1467.37 | 1466.50 | 1465.98 | 1464.55 | 1463.54 |
| 24 | 1453.75 | 1453.69 | 1453.71 | 1453.84 | 1454.90 | 1456.90 | 1462.94 | 1467.28 | 1466.47 | 1465.92 | 1464.52 | 1463.57 |
| 25 | 1453.75 | 1453.65 | 1453.71 | 1453.90 | 1454.92 | 1457.08 | 1463.11 | 1467.26 | 1466.60 | 1465.87 | 1464.50 | 1463.53 |
| 26 | 1453.73 | 1453.72 | 1453.71 | 1453.90 | 1454.94 | 1457.31 | 1463.39 | 1467.19 | 1467.00 | 1465.80 | 1464.47 | 1463.44 |
| 27 | 1453.70 | 1453.69 | 1453.71 | 1453.90 | 1454.97 | 1457.42 | 1463.53 | 1467.19 | 1467.35 | 1465.76 | 1464.44 | 1463.45 |
| 28 | 1453.70 | 1453.74 | 1453.71 | 1453.90 | 1455.00 | 1457.50 | 1463.58 | 1467.13 | 1467.46 | 1465.66 | 1464.41 | 1463.46 |
| 29 | 1453.70 | 1453.70 | 1453.71 | 1453.90 | 1455.03 | 1457.67 | 1464.41 | 1467.06 | 1467.54 | 1465.61 | 1464.37 | 1463.45 |
| 30 | 1453.70 | 1453.72 | 1453.71 | 1453.85 | --- | 1457.65 | 1466.04 | 1467.00 | 1467.54 | 1465.56 | 1464.33 | 1463.43 |
| 31 | 1453.70 | --- | 1453.71 | 1453.80 | --- | 1457.70 | --- | 1466.92 | --- | 1465.48 | 1464.26 | --- |
| MEAN | 1453.84 | 1453.72 | 1453.70 | 1453.74 | 1454.66 | 1455.99 | 1461.34 | 1467.47 | 1466.76 | 1466.50 | 1464.86 | 1463.76 |
| MAX | 1454.23 | 1453.78 | 1453.72 | 1453.90 | 1455.03 | 1457.70 | 1466.04 | 1467.80 | 1467.54 | 1467.52 | 1465.43 | 1464.22 |
| MIN | 1453.68 | 1453.65 | 1453.67 | 1453.59 | 1453.88 | 1455.04 | 1457.76 | 1466.86 | 1466.34 | 1465.48 | 1464.26 | 1463.43 |
| (+) | 30,290 | 30,330 | 30,310 | 30,500 | 33,230 | 39,630 | 67,520 | 71,290 | 74,040 | 65,210 | 60,410 | 57,330 |
| (#) | -1,190 | +40 | -20 | +190 | +2,730 | +6,400 | +27,890 | +3,770 | +2,750 | -8,830 | -4,800 | -3,080 |

CAL YR 1983 ........................ (#) -620
WTR YR 1984 ........................ (#) +25,850

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

BEST COPY AVAILABLE

## 06865500 SMOKY HILL RIVER NEAR LANGLEY, KS

LOCATION.--Lat 38 deg 36 min 35 sec, long 97 deg 57 min 04 sec, in SW1/4 SW1/4 SE1/4 sec.35, T.16 S., R.6 W., Ellsworth County, Hydrologic Unit 10260008, at downstream side of county highway bridge, 0.8 mi downstream from Kanopolis Dam, 5.0 mi north of Langley, and at mile 182.9.

DRAINAGE AREA.--7,857 sq mi.

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1310: 1942(M).

GAGE.--Water-stage recorder. Datum of gage is 1,395.66 ft National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Apr. 1, 1952, water-stage recorder at datum 7.00 ft higher. Apr. 1, 1952, to Oct. 1, 1973, water-stage recorder at datum 5.00 ft higher.

REMARKS.--Records good. Flow completely regulated since 1948 by Kanopolis Lake (see sta 06865000).

AVERAGE DISCHARGE.--44 years, 306 cu ft per sec, 221,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 21,900 cu ft per sec Oct. 20, 1941, gage height, 32.2 ft, present datum; minimum daily, 0.40 cu ft per sec Jan. 23, 1948. Maximum discharge since closure of Kanopolis Dam in 1946, 5,570 cu ft per sec July 15, 1951.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1938 reached a stage of 33.9 ft, present datum, from information by Corps of Engineers, discharge, about 45,000 cu ft per sec by extension of subsequent rating curve above 16,000 cu ft per sec and correlation of peak flow at adjacent stations.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 332 cu ft per sec June 23, gage height, 6.14 ft; minimum, 5.0 cu ft per sec Mar. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 51 | 23 | 14 | 12 | 15 | 5.8 | 5.3 | 137 | 135 | 240 | 100 | 44 |
| 2 | 51 | 23 | 14 | 12 | 14 | 5.7 | 8.2 | 167 | 133 | 240 | 95 | 43 |
| 3 | 48 | 23 | 14 | 12 | 14 | 5.8 | 52 | 193 | 134 | 238 | 92 | 43 |
| 4 | 46 | 23 | 13 | 12 | 14 | 5.6 | 56 | 191 | 137 | 232 | 90 | 43 |
| 5 | 50 | 22 | 13 | 13 | 14 | 5.5 | 8.2 | 194 | 134 | 229 | 88 | 42 |
| 6 | 50 | 22 | 13 | 14 | 14 | 5.5 | 6.6 | 198 | 132 | 219 | 88 | 39 |
| 7 | 50 | 20 | 13 | 14 | 15 | 5.5 | 6.1 | 200 | 129 | 213 | 85 | 35 |
| 8 | 50 | 17 | 13 | 13 | 15 | 5.3 | 5.8 | 200 | 128 | 209 | 87 | 34 |
| 9 | 50 | 11 | 13 | 13 | 15 | 5.4 | 5.7 | 203 | 134 | 200 | 87 | 32 |
| 10 | 50 | 7.2 | 13 | 13 | 15 | 5.5 | 6.1 | 203 | 136 | 193 | 84 | 32 |
| 11 | 51 | 7.2 | 12 | 13 | 14 | 5.5 | 6.7 | 204 | 134 | 187 | 82 | 31 |
| 12 | 38 | 7.2 | 12 | 13 | 15 | 5.5 | 6.8 | 203 | 132 | 186 | 82 | 30 |
| 13 | 22 | 14 | 11 | 12 | 15 | 5.5 | 5.9 | 203 | 131 | 184 | 79 | 29 |
| 14 | 20 | 20 | 12 | 12 | 15 | 5.4 | 5.4 | 200 | 131 | 177 | 78 | 27 |
| 15 | 19 | 19 | 13 | 13 | 14 | 5.3 | 5.3 | 197 | 131 | 169 | 76 | 26 |
| 16 | 19 | 14 | 13 | 13 | 13 | 5.6 | 14 | 193 | 132 | 165 | 73 | 24 |
| 17 | 19 | 14 | 13 | 13 | 13 | 6.2 | 22 | 190 | 132 | 159 | 69 | 21 |
| 18 | 19 | 13 | 13 | 13 | 12 | 7.1 | 23 | 187 | 135 | 151 | 65 | 17 |
| 19 | 21 | 13 | 13 | 12 | 12 | 8.4 | 23 | 181 | 138 | 146 | 64 | 17 |
| 20 | 23 | 13 | 13 | 13 | 11 | 7.0 | 27 | 179 | 137 | 142 | 63 | 17 |
| 21 | 24 | 14 | 12 | 13 | 10 | 9.4 | 32 | 171 | 136 | 138 | 61 | 16 |
| 22 | 20 | 14 | 12 | 13 | 11 | 6.0 | 26 | 167 | 140 | 134 | 61 | 15 |
| 23 | 20 | 13 | 12 | 13 | 7.3 | 5.7 | 26 | 166 | 209 | 132 | 58 | 14 |
| 24 | 21 | 14 | 12 | 13 | 7.6 | 8.3 | 25 | 159 | 157 | 128 | 57 | 14 |
| 25 | 21 | 14 | 12 | 13 | 6.2 | 8.8 | 26 | 153 | 153 | 124 | 55 | 14 |
| 26 | 23 | 14 | 12 | 13 | 5.8 | 6.4 | 31 | 152 | 199 | 120 | 56 | 13 |
| 27 | 23 | 14 | 12 | 13 | 5.6 | 5.9 | 34 | 150 | 219 | 116 | 54 | 13 |
| 28 | 24 | 11 | 12 | 13 | 5.7 | 5.3 | 36 | 146 | 230 | 112 | 54 | 12 |
| 29 | 23 | 11 | 12 | 12 | 5.7 | 5.4 | 96 | 143 | 235 | 109 | 51 | 12 |
| 30 | 23 | 16 | 12 | 13 | --- | 5.5 | 116 | 140 | 239 | 106 | 50 | 12 |
| 31 | 23 | --- | 12 | 14 | --- | 5.4 | --- | 137 | --- | 103 | 50 | --- |
| TOTAL | 992 | 458.6 | 390 | 398 | 343.9 | 189.1 | 747.1 | 5497 | 4582 | 5199 | 2234 | 761 |
| MEAN | 32.0 | 15.3 | 12.6 | 12.8 | 11.9 | 6.10 | 24.9 | 177 | 153 | 168 | 72.1 | 25.4 |
| MAX | 51 | 23 | 14 | 14 | 15 | 9.4 | 116 | 204 | 239 | 240 | 100 | 44 |
| MIN | 19 | 7.2 | 11 | 12 | 5.6 | 5.3 | 5.3 | 137 | 128 | 103 | 50 | 12 |
| AC-FT | 1970 | 910 | 774 | 789 | 682 | 375 | 1480 | 10900 | 9090 | 10310 | 4430 | 1510 |

CAL YR 1983 TOTAL 13933.6 MEAN 38.2 MAX 125 MIN 7.2 AC-FT 27640
WTR YR 1984 TOTAL 21791.7 MEAN 59.5 MAX 240 MIN 5.3 AC-FT 43220

## 06866500 SMOKY HILL RIVER NEAR MENTOR, KS

LOCATION.--Lat 38 deg 47 min 54 sec, long 97 deg 34 min 28 sec, in SW1/4 SW1/4 SW1/4 sec.29, T.14 S., R.2 W., Saline County, Hydrologic Unit 10260008, at downstream side of highway bridge, 4.0 mi north of Mentor, and at mile 101.7.

DRAINAGE AREA.--8,358 sq mi.

PERIOD OF RECORD.--December 1923 to October 1930, May 1931 to June 1932, October 1947 to current year. Published as "near Salina" 1948-49.

REVISED RECORDS.--WSP 1440: 1924, 1927-28, 1929(M), 1932(M). WSP 1919: 1960.

GAGE.--Water-stage recorder. Datum of gage is 1,211.40 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to June 30, 1932, nonrecording gage at site 10 mi upstream at datum 20.9 ft higher. Oct. 1, 1947, to Sept. 18, 1948, nonrecording gage, and Sept. 19, 1948, to June 26, 1959, water-stage recorder at site 0.3 mi west on former channel, at present datum. June 27, 1959, to Sept. 6, 1959, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Considerable regulation since 1948 by Kanopolis Lake 82.0 mi upstream, see sta 06865000. Diversions above station for irrigation.

AVERAGE DISCHARGE.--43 years (water years 1925-30, 1948-84), 393 cu ft per sec, 284,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,500 cu ft per sec Aug. 17, 1927, gage height, 26.2 ft, from floodmark, site and datum then in use, from rating curve extended above 5,700 cu ft per sec on basis of flood-routing study and slope-area measurement at gage height 25.8 ft; minimum, 1.8 cu ft per sec July 10, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest known flood at Salina, 7.5 mi downstream occurred in 1844; second greatest known flood, May 29, 1903, reached a stage of 26.5 ft near Mentor, from floodmarks, site and datum of 1923-32.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,220 cu ft per sec Apr. 30, gage height, 14.46 ft; minimum, 28 cu ft per sec Sept. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 55 | 51 | 41 | 32 | 43 | 43 | 102 | 1970 | 219 | 225 | 108 | 56 |
| 2 | 55 | 49 | 38 | 32 | 54 | 42 | 131 | 666 | 214 | 222 | 104 | 58 |
| 3 | 56 | 48 | 49 | 32 | 83 | 44 | 1400 | 569 | 210 | 220 | 99 | 55 |
| 4 | 57 | 45 | 44 | 32 | 88 | 52 | 3000 | 455 | 215 | 219 | 95 | 56 |
| 5 | 59 | 44 | 50 | 32 | 89 | 53 | 1200 | 399 | 215 | 214 | 91 | 59 |
| 6 | 58 | 50 | 66 | 32 | 75 | 51 | 750 | 375 | 217 | 206 | 98 | 56 |
| 7 | 56 | 50 | 46 | 33 | 67 | 50 | 600 | 373 | 239 | 194 | 101 | 53 |
| 8 | 59 | 49 | 45 | 34 | 69 | 47 | 650 | 373 | 313 | 190 | 103 | 52 |
| 9 | 60 | 53 | 44 | 36 | 69 | 43 | 500 | 352 | 233 | 191 | 99 | 50 |
| 10 | 61 | 50 | 43 | 40 | 60 | 44 | 400 | 332 | 210 | 184 | 101 | 54 |
| 11 | 76 | 48 | 42 | 44 | 58 | 42 | 500 | 325 | 210 | 174 | 87 | 52 |
| 12 | 78 | 46 | 41 | 48 | 57 | 47 | 750 | 320 | 212 | 167 | 80 | 49 |
| 13 | 74 | 42 | 39 | 51 | 55 | 46 | 850 | 311 | 211 | 159 | 83 | 47 |
| 14 | 66 | 37 | 37 | 54 | 52 | 47 | 500 | 302 | 203 | 155 | 80 | 49 |
| 15 | 61 | 35 | 35 | 55 | 50 | 48 | 350 | 298 | 322 | 154 | 74 | 48 |
| 16 | 47 | 32 | 35 | 56 | 52 | 49 | 250 | 294 | 221 | 150 | 74 | 47 |
| 17 | 43 | 41 | 35 | 55 | 50 | 90 | 200 | 274 | 196 | 147 | 74 | 49 |
| 18 | 41 | 44 | 35 | 52 | 52 | 159 | 128 | 270 | 188 | 141 | 68 | 53 |
| 19 | 46 | 44 | 35 | 49 | 52 | 1210 | 125 | 268 | 186 | 136 | 68 | 52 |
| 20 | 47 | 39 | 34 | 46 | 51 | 977 | 148 | 265 | 188 | 124 | 67 | 47 |
| 21 | 54 | 38 | 34 | 43 | 50 | 1070 | 579 | 261 | 194 | 124 | 96 | 39 |
| 22 | 66 | 38 | 34 | 41 | 49 | 1830 | 697 | 261 | 184 | 124 | 82 | 37 |
| 23 | 72 | 39 | 34 | 38 | 50 | 749 | 499 | 257 | 390 | 122 | 79 | 37 |
| 24 | 57 | 39 | 33 | 37 | 47 | 819 | 351 | 252 | 451 | 119 | 76 | 37 |
| 25 | 50 | 38 | 33 | 36 | 45 | 1610 | 245 | 248 | 301 | 120 | 71 | 36 |
| 26 | 46 | 41 | 33 | 36 | 46 | 611 | 194 | 234 | 245 | 113 | 80 | 32 |
| 27 | 48 | 47 | 33 | 41 | 47 | 314 | 174 | 242 | 284 | 111 | 73 | 33 |
| 28 | 47 | 51 | 32 | 52 | 47 | 218 | 160 | 251 | 244 | 105 | 70 | 39 |
| 29 | 47 | 50 | 32 | 43 | 43 | 158 | 672 | 241 | 235 | 107 | 67 | 41 |
| 30 | 51 | 48 | 32 | 41 | --- | 129 | 3680 | 228 | 232 | 108 | 63 | 37 |
| 31 | 52 | --- | 32 | 40 | --- | 113 | --- | 222 | --- | 107 | 60 | --- |
| TOTAL | 1747 | 1326 | 1196 | 1293 | 1650 | 10805 | 19755 | 11458 | 7176 | 4830 | 2571 | 1410 |
| MEAN | 56.4 | 44.2 | 38.6 | 41.7 | 56.9 | 349 | 660 | 371 | 239 | 156 | 82.9 | 47.0 |
| MAX | 78 | 53 | 66 | 56 | 89 | 1830 | 3680 | 1970 | 451 | 225 | 108 | 59 |
| MIN | 41 | 32 | 32 | 32 | 43 | 42 | 102 | 222 | 184 | 105 | 60 | 32 |
| AC-FT | 3470 | 2630 | 2370 | 2560 | 3270 | 21430 | 39250 | 22790 | 14230 | 9580 | 5100 | 2800 |

CAL YR 1983 TOTAL 39102 MEAN 107 MAX 1120 MIN 11 AC-FT 77560
WTR YR 1984 TOTAL 65280 MEAN 178 MAX 3680 MIN 32 AC-FT 129500

BEST COPY AVAILABLE

## 06867000 SALINE RIVER NEAR RUSSELL, KS

LOCATION.--Lat 38 deg 58 min 00 sec, long 98 deg 51 min 20 sec, in SW1/4 SW1/4 NW1/4 sec.35, T.12 S., R.14 W., Russell County, Hydrologic Unit 10260009, on left bank at downstream side of bridge on U.S. Highway 281, 2.0 mi downstream from Salt Creek, 5.0 mi north of Russell, and at mile 190.6.

DRAINAGE AREA.--1,502 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to September 1953, June 1959 to current year.

REVISED RECORDS.--WSP 1919: 1960.

GAGE.--Water-stage recorder. Datum of gage is 1,551.59 ft National Geodetic Vertical Datum of 1929. Prior to Jan. 22, 1946, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for periods of no gage-height record, Oct. 10 to Nov. 16, July 21 to Aug. 14, and those for winter period, which are poor. Low flow partially regulated at times by irrigation.

AVERAGE DISCHARGE.--33 years (water years 1946-53, 1960-84), 94.1 cu ft per sec, 68,180 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 cu ft per sec Sept. 1, 1964, gage height, 19.70 ft; no flow Aug. 11, 12, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 555 cu ft per sec Apr. 22, gage height, 7.71 ft, no peak above base of 2,000 cu ft per sec; minimum daily, 0.21 cu ft per sec Dec. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .77 | 1.5 | 4.5 | .56 | 30 | 4.8 | 35 | 198 | 46 | 82 | 15 | 11 |
| 2 | .59 | 1.2 | 5.0 | .76 | 21 | 3.7 | 56 | 177 | 49 | 86 | 15 | 11 |
| 3 | .42 | 1.5 | 4.9 | 1.1 | 19 | 4.4 | 165 | 146 | 49 | 92 | 14 | 9.1 |
| 4 | .92 | 2.0 | 4.7 | 1.5 | 16 | 5.7 | 198 | 135 | 45 | 97 | 11 | 8.7 |
| 5 | .85 | 2.4 | 5.7 | 2.0 | 15 | 5.4 | 142 | 126 | 42 | 110 | 10 | 8.7 |
| 6 | 1.0 | 2.2 | 4.5 | 3.5 | 16 | 4.9 | 108 | 129 | 41 | 95 | 10 | 8.1 |
| 7 | 1.3 | 2.0 | 4.9 | 6.0 | 13 | 4.7 | 86 | 165 | 38 | 84 | 9.0 | 6.7 |
| 8 | 1.1 | 1.9 | 5.1 | 9.0 | 12 | 5.1 | 73 | 149 | 36 | 81 | 8.0 | 6.7 |
| 9 | .86 | 1.9 | 5.0 | 14 | 11 | 4.4 | 63 | 140 | 36 | 72 | 8.0 | 6.5 |
| 10 | .86 | 2.0 | 5.1 | 8.5 | 11 | 4.4 | 60 | 133 | 35 | 73 | 8.0 | 5.7 |
| 11 | 1.1 | 1.9 | 6.0 | 4.4 | 10 | 4.7 | 58 | 119 | 34 | 74 | 7.0 | 5.2 |
| 12 | .90 | 1.7 | 5.2 | 2.5 | 9.0 | 6.7 | 58 | 110 | 34 | 66 | 6.0 | 4.0 |
| 13 | .94 | 1.8 | 5.5 | 1.6 | 7.9 | 7.6 | 54 | 103 | 35 | 70 | 6.0 | 3.8 |
| 14 | .97 | 1.9 | 4.7 | 1.1 | 7.6 | 7.6 | 49 | 95 | 37 | 69 | 5.0 | 4.7 |
| 15 | 1.0 | 1.9 | 4.6 | .80 | 7.9 | 7.0 | 44 | 88 | 47 | 62 | 3.9 | 4.5 |
| 16 | .92 | 1.9 | 4.5 | .60 | 6.7 | 7.5 | 41 | 84 | 46 | 84 | 3.4 | 4.4 |
| 17 | .96 | 2.6 | 3.7 | .40 | 5.5 | 13 | 38 | 80 | 42 | 88 | 2.8 | 4.2 |
| 18 | 1.0 | 3.3 | 2.2 | .30 | 7.2 | 19 | 33 | 77 | 38 | 77 | 2.5 | 3.6 |
| 19 | 1.2 | 3.8 | 1.7 | .30 | 6.7 | 28 | 34 | 80 | 35 | 70 | 2.7 | 3.5 |
| 20 | 1.5 | 4.4 | 1.5 | .35 | 6.0 | 22 | 38 | 84 | 34 | 68 | 3.3 | 3.2 |
| 21 | 1.0 | 4.8 | 1.1 | .40 | 5.4 | 22 | 152 | 73 | 33 | 64 | 20 | 3.2 |
| 22 | 1.1 | 4.4 | .90 | .50 | 5.3 | 23 | 345 | 70 | 45 | 48 | 18 | 3.0 |
| 23 | 1.0 | 4.4 | .75 | .60 | 5.6 | 25 | 232 | 67 | 94 | 37 | 11 | 3.1 |
| 24 | .92 | 4.4 | .65 | .30 | 4.6 | 28 | 188 | 64 | 156 | 29 | 16 | 2.8 |
| 25 | .90 | 4.8 | .57 | 1.0 | 4.8 | 28 | 144 | 61 | 93 | 25 | 14 | 2.8 |
| 26 | .96 | 5.1 | .45 | 1.5 | 4.5 | 27 | 122 | 58 | 135 | 21 | 19 | 2.8 |
| 27 | 1.2 | 4.9 | .35 | 2.5 | 4.1 | 26 | 102 | 56 | 87 | 18 | 21 | 3.3 |
| 28 | 1.5 | 5.1 | .25 | 4.0 | 4.4 | 27 | 89 | 52 | 81 | 17 | 19 | 3.1 |
| 29 | 2.0 | 5.1 | .21 | 8.0 | 4.5 | 32 | 146 | 51 | 81 | 16 | 16 | 2.6 |
| 30 | 2.5 | 4.9 | .30 | 15 | --- | 35 | 327 | 50 | 82 | 16 | 14 | 2.5 |
| 31 | 2.0 | --- | .40 | 30 | --- | 36 | --- | 48 | --- | 16 | 12 | --- |
| TOTAL | 34.24 | 91.7 | 94.93 | 123.57 | 281.7 | 479.6 | 3280 | 3066 | 1686 | 1907 | 330.6 | 152.5 |
| MEAN | 1.10 | 3.06 | 3.06 | 3.99 | 9.71 | 15.5 | 109 | 98.9 | 56.2 | 61.5 | 10.7 | 5.08 |
| MAX | 2.5 | 5.1 | 6.0 | 30 | 30 | 36 | 345 | 198 | 156 | 110 | 21 | 11 |
| MIN | .42 | 1.2 | .21 | .30 | 4.1 | 3.7 | 33 | 48 | 33 | 16 | 2.5 | 2.5 |
| AC-FT | 68 | 182 | 188 | 245 | 559 | 951 | 6510 | 6080 | 3340 | 3780 | 656 | 302 |

CAL YR 1983 TOTAL 3664.68 MEAN 10.0 MAX 72 MIN .21 AC-FT 7270
WTR YR 1984 TOTAL 11527.84 MEAN 31.5 MAX 345 MIN .21 AC-FT 22870

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## 06867000 SALINE RIVER NEAR RUSSELL, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-51, 1962 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1946 to September 1949, October 1964 to July 1970.
WATER TEMPERATURES: January 1946 to September 1951, October 1964 to July 1970.
SUSPENDED-SEDIMENT DISCHARGE: May 1946 to September 1951.

REMARKS.--Sediment samples are collected only at selected flow conditions.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) |
|---|---|---|---|---|
| MAR | | | | |
| 29... | 14:15 | 32 | 139 | 12 |
| MAY | | | | |
| 03... | 13:05 | 151 | 278 | 113 |
| SEP | | | | |
| 22... | 12:15 | 3.1 | 91 | 0.76 |

## 06868100 WILSON LAKE NEAR WILSON, KS

LOCATION.--Lat 38 deg 58 min 00 sec, long 98 deg 29 min 35 sec, in NE1/4 NW1/4 SE1/4 sec.36, T.12 S., R.11 W., Russell County, Hydrologic Unit 10260009, in the control tower near right end of Wilson Dam on the Saline River, 10 mi north of Wilson, and at mile 153.9.

DRAINAGE AREA.--1,917 sq mi.

PERIOD OF RECORD.--December 1964 to current year. Prior to October 1971, published as "Wilson Reservoir."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam. Storage began Dec. 29, 1964. Total capacity, 1,711,000 acre-ft below elevation 1,587.5 ft, consisting of 1,960 acre-ft of dead storage below elevation 1,450 ft; conservation pool, 245,880 acre-ft between elevation 1,450 ft and 1,516 ft; flood control pool, 1,253,000 acre-ft between 1,516 ft and 1,582 ft, crest of spillway; and surcharge capacity of 210,200 acre-ft between 1,582 ft and 1,587.5 ft. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,521.92 ft Nov. 7, 1973, contents, 305,600 acre-ft; minimum since conservation pool first filled, 1,493.59 ft Dec. 26, 1966, contents, 91,500 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,517.06 ft June 26, 27, contents, 257,600 acre-ft; minimum, 1,513.49 ft Dec. 16, 18, contents, 225,800 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

| | | | |
|---|---|---|---|
| 1,513 | 221,600 | 1,516 | 247,800 |
| 1,514 | 230,200 | 1,517 | 257,000 |
| 1,515 | 238,900 | 1,518 | 266,400 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1513.87 | 1513.70 | 1513.57 | 1513.52 | 1513.69 | 1513.73 | 1514.01 | 1515.70 | 1516.46 | 1517.02 | 1516.10 | 1515.64 |
| 2 | 1513.85 | 1513.70 | 1513.57 | 1513.52 | 1513.70 | 1513.72 | 1514.15 | 1515.75 | 1516.49 | 1517.01 | 1516.07 | 1515.59 |
| 3 | 1513.82 | 1513.71 | 1513.53 | 1513.51 | 1513.71 | 1513.77 | 1514.25 | 1515.84 | 1516.50 | 1517.02 | 1516.06 | 1515.57 |
| 4 | 1513.80 | 1513.70 | 1513.58 | 1513.51 | 1513.72 | 1513.76 | 1514.27 | 1515.87 | 1516.54 | 1517.02 | 1516.05 | 1515.53 |
| 5 | 1513.77 | 1513.69 | 1513.55 | 1513.51 | 1513.70 | 1513.75 | 1514.31 | 1515.93 | 1516.53 | 1517.03 | 1516.04 | 1515.52 |
| 6 | 1513.76 | 1513.72 | 1513.57 | 1513.55 | 1513.70 | 1513.75 | 1514.30 | 1516.01 | 1516.52 | 1516.98 | 1516.01 | 1515.50 |
| 7 | 1513.75 | 1513.70 | 1513.55 | 1513.57 | 1513.70 | 1513.74 | 1514.43 | 1516.07 | 1516.51 | 1516.97 | 1516.02 | 1515.38 |
| 8 | 1513.72 | 1513.73 | 1513.55 | 1513.55 | 1513.70 | 1513.72 | 1514.44 | 1516.10 | 1516.46 | 1516.93 | 1516.01 | 1515.37 |
| 9 | 1513.68 | 1513.73 | 1513.54 | 1513.55 | 1513.72 | 1513.70 | 1514.46 | 1516.14 | 1516.52 | 1516.90 | 1515.99 | 1515.34 |
| 10 | 1513.72 | 1513.70 | 1513.55 | 1513.55 | 1513.71 | 1513.62 | 1514.50 | 1516.17 | 1516.49 | 1516.88 | 1515.97 | 1515.30 |
| 11 | 1513.73 | 1513.65 | 1513.53 | 1513.55 | 1513.73 | 1513.72 | 1514.58 | 1516.19 | 1516.50 | 1516.87 | 1515.94 | 1515.32 |
| 12 | 1513.69 | 1513.68 | 1513.53 | 1513.57 | 1513.74 | 1513.76 | 1514.57 | 1516.23 | 1516.51 | 1516.82 | 1515.92 | 1515.27 |
| 13 | 1513.66 | 1513.68 | 1513.52 | 1513.56 | 1513.74 | 1513.75 | 1514.56 | 1516.25 | 1516.52 | 1516.79 | 1515.90 | 1515.24 |
| 14 | 1513.67 | 1513.69 | 1513.55 | 1513.57 | 1513.74 | 1513.78 | 1514.56 | 1516.27 | 1516.51 | 1516.77 | 1515.87 | 1515.20 |
| 15 | 1513.63 | 1513.66 | 1513.50 | 1513.60 | 1513.79 | 1513.77 | 1514.54 | 1516.27 | 1516.50 | 1516.76 | 1515.84 | 1515.1[illegible] |
| 16 | 1513.63 | 1513.65 | 1513.49 | 1513.59 | 1513.75 | 1513.83 | 1514.54 | 1516.30 | 1516.51 | 1516.77 | 1515.82 | 1515.16 |
| 17 | 1513.62 | 1513.65 | 1513.50 | 1513.61 | 1513.69 | 1513.80 | 1514.54 | 1516.33 | 1516.52 | 1516.76 | 1515.80 | 1515.12 |
| 18 | 1513.63 | 1513.65 | 1513.49 | 1513.62 | 1513.79 | 1513.91 | 1514.55 | 1516.35 | 1516.52 | 1516.76 | 1515.77 | 1515.12 |
| 19 | 1513.73 | 1513.68 | 1513.50 | 1513.61 | 1513.77 | 1513.93 | 1514.52 | 1516.40 | 1516.50 | 1516.75 | 1515.74 | 1515.10 |
| 20 | 1513.71 | 1513.65 | 1513.52 | 1513.64 | 1513.77 | 1513.92 | 1514.60 | 1516.41 | 1516.49 | 1516.72 | 1515.72 | 1515.07 |
| 21 | 1513.74 | 1513.64 | 1513.52 | 1513.62 | 1513.76 | 1513.92 | 1514.81 | 1516.42 | 1516.55 | 1516.67 | 1515.80 | 1515.06 |
| 22 | 1513.73 | 1513.65 | 1513.52 | 1513.62 | 1513.77 | 1513.92 | 1514.95 | 1516.45 | 1516.68 | 1516.64 | 1515.78 | 1515.02 |
| 23 | 1513.70 | 1513.64 | 1513.52 | 1513.62 | 1513.76 | 1513.96 | 1515.03 | 1516.45 | 1516.70 | 1516.63 | 1515.76 | 1515.02 |
| 24 | 1513.69 | 1513.62 | 1513.52 | 1513.62 | 1513.75 | 1513.99 | 1515.09 | 1516.47 | 1516.71 | 1516.54 | 1515.73 | 1515.00 |
| 25 | 1513.69 | 1513.60 | 1513.52 | 1513.62 | 1513.69 | 1513.98 | 1515.17 | 1516.46 | 1516.82 | 1516.37 | 1515.72 | 1514.96 |
| 26 | 1513.68 | 1513.63 | 1513.52 | 1513.63 | 1513.76 | 1514.01 | 1515.20 | 1516.44 | 1517.06 | 1516.27 | 1515.71 | 1514.91 |
| 27 | 1513.70 | 1513.67 | 1513.52 | 1513.62 | 1513.75 | 1514.02 | 1515.21 | 1516.47 | 1517.06 | 1516.26 | 1515.70 | 1514.92 |
| 28 | 1513.64 | 1513.62 | 1513.53 | 1513.65 | 1513.73 | 1514.02 | 1515.20 | 1516.45 | 1517.05 | 1516.20 | 1515.69 | 1514.89 |
| 29 | 1513.71 | 1513.59 | 1513.53 | 1513.67 | 1513.75 | 1514.02 | 1515.49 | 1516.43 | 1517.05 | 1516.16 | 1515.67 | 1514.86 |
| 30 | 1513.70 | 1513.60 | 1513.52 | 1513.68 | --- | 1514.02 | 1515.61 | 1516.43 | 1517.03 | 1516.14 | 1515.64 | 1514.84 |
| 31 | 1513.70 | --- | 1513.52 | 1513.69 | --- | 1514.03 | --- | 1516.41 | --- | 1516.11 | 1515.65 | --- |
| MEAN | 1513.71 | 1513.67 | 1513.53 | 1513.59 | 1513.73 | 1513.85 | 1514.62 | 1516.24 | 1516.63 | 1516.69 | 1515.85 | 1515.20 |
| MAX | 1513.87 | 1513.73 | 1513.58 | 1513.69 | 1513.79 | 1514.03 | 1515.61 | 1516.47 | 1517.06 | 1517.03 | 1516.10 | 1515.64 |
| MIN | 1513.62 | 1513.59 | 1513.49 | 1513.51 | 1513.69 | 1513.63 | 1514.01 | 1515.70 | 1516.46 | 1516.11 | 1515.64 | 1514.84 |
| (+) | 227,600 | 226,700 | 226,000 | 227,500 | 228,000 | 230,400 | 244,300 | 251,600 | 257,300 | 248,900 | 244,700 | 237,500 |
| (#) | -1,200 | -900 | -700 | +1,500 | +500 | +2,400 | +13,900 | +7,300 | +5,700 | -8,500 | -4,100 | -7,200 |

CAL YR 1983 ........................ (#) -14,500
WTR YR 1984 ........................ (#) +8,700

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 06868200 SALINE RIVER AT WILSON DAM, KS

LOCATION.--Lat 38 deg 58 min 35 sec, long 98 deg 29 min 20 sec, in NE1/4 SW1/4 SE1/4 sec.25, T.12 S., R.11 W., Russell County, Hydrologic Unit 10260010, 0.5 mi downstream from outlet of Wilson Dam, 9.0 mi upstream from Wolf Creek, 10 mi north of Wilson, and at mile 153.4.

DRAINAGE AREA.--1,917 sq mi.

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,437 ft, from topographic map. Prior to May 12, 1965, water-stage recorder at site 1.5 mi downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Flow completely regulated since 1964 by Wilson Lake (see sta 06868100).

AVERAGE DISCHARGE.--21 years, 41.7 cu ft per sec, 30,210 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,320 cu ft per sec Apr. 6, 1973, gage height, 15.84 ft; no flow Nov. 8, 1976, parts of Dec. 10, 11, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 825 cu ft per sec July 26, gage height, 11.22 ft; minimum discharge, 2.5 cu ft per sec Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17 | 9.2 | 15 | 16 | 14 | 8.9 | 8.8 | 17 | 22 | 23 | 24 | 14 |
| 2 | 17 | 8.5 | 16 | 14 | 14 | 9.2 | 9.9 | 17 | 22 | 23 | 17 | 14 |
| 3 | 17 | 8.5 | 16 | 14 | 14 | 9.2 | 22 | 17 | 21 | 23 | 22 | 14 |
| 4 | 18 | 8.1 | 16 | 14 | 14 | 9.6 | 20 | 17 | 22 | 23 | 21 | 14 |
| 5 | 18 | 9.2 | 17 | 14 | 14 | 9.2 | 20 | 17 | 22 | 23 | 14 | 14 |
| 6 | 18 | 9.6 | 17 | 14 | 14 | 8.8 | 20 | 17 | 23 | 23 | 4.2 | 14 |
| 7 | 18 | 10 | 17 | 14 | 14 | 8.9 | 20 | 17 | 88 | 23 | 4.2 | 14 |
| 8 | 18 | 10 | 17 | 14 | 14 | 9.2 | 20 | 17 | 46 | 23 | 6.0 | 14 |
| 9 | 18 | 11 | 17 | 14 | 13 | 98 | 20 | 18 | 21 | 20 | 21 | 14 |
| 10 | 17 | 11 | 17 | 14 | 9.8 | 10 | 20 | 19 | 20 | 20 | 21 | 16 |
| 11 | 73 | 11 | 17 | 13 | 8.8 | 9.6 | 18 | 151 | 20 | 21 | 20 | 19 |
| 12 | 52 | 11 | 18 | 13 | 8.5 | 9.6 | 18 | 23 | 22 | 54 | 21 | 19 |
| 13 | 10 | 11 | 18 | 13 | 8.8 | 9.2 | 140 | 23 | 22 | 87 | 20 | 64 |
| 14 | 10 | 12 | 18 | 13 | 8.8 | 9.2 | 18 | 23 | 22 | 20 | 20 | 90 |
| 15 | 10 | 12 | 18 | 13 | 9.2 | 9.6 | 17 | 23 | 22 | 21 | 21 | 20 |
| 16 | 10 | 12 | 18 | 13 | 9.6 | 9.6 | 17 | 23 | 21 | 21 | 18 | 20 |
| 17 | 10 | 13 | 17 | 13 | 9.2 | 9.6 | 16 | 23 | 22 | 21 | 16 | 21 |
| 18 | 10 | 14 | 16 | 13 | 9.4 | 10 | 16 | 23 | 22 | 21 | 17 | 21 |
| 19 | 11 | 14 | 14 | 13 | 9.0 | 9.6 | 16 | 23 | 21 | 20 | 17 | 20 |
| 20 | 10 | 11 | 13 | 13 | 8.8 | 11 | 18 | 23 | 21 | 20 | 17 | 19 |
| 21 | 10 | 13 | 13 | 14 | 8.8 | 10 | 18 | 23 | 21 | 20 | 17 | 20 |
| 22 | 10 | 13 | 13 | 15 | 8.8 | 9.6 | 17 | 23 | 24 | 20 | 17 | 22 |
| 23 | 9.6 | 13 | 13 | 14 | 9.5 | 9.6 | 17 | 22 | 24 | 20 | 16 | 21 |
| 24 | 9.6 | 13 | 13 | 14 | 9.2 | 9.6 | 17 | 22 | 24 | 349 | 15 | 21 |
| 25 | 9.6 | 14 | 13 | 14 | 9.4 | 9.6 | 17 | 22 | 26 | 777 | 15 | 21 |
| 26 | 10 | 14 | 14 | 14 | 9.8 | 9.6 | 17 | 22 | 27 | 486 | 14 | 21 |
| 27 | 9.6 | 15 | 15 | 14 | 9.7 | 9.6 | 17 | 22 | 23 | 14 | 14 | 21 |
| 28 | 10 | 14 | 14 | 14 | 9.6 | 10 | 17 | 22 | 23 | 22 | 14 | 21 |
| 29 | 10 | 14 | 14 | 14 | 9.2 | 8.9 | 20 | 22 | 23 | 22 | 14 | 21 |
| 30 | 9.6 | 15 | 14 | 14 | --- | 8.8 | 18 | 22 | 23 | 22 | 14 | 21 |
| 31 | 8.5 | --- | 15 | 14 | --- | 8.5 | --- | 22 | --- | 85 | 14 | --- |
| TOTAL | 488.5 | 354.1 | 483 | 427 | 309.2 | 381.9 | 649.7 | 775 | 760 | 2367 | 505.4 | 665 |
| MEAN | 15.8 | 11.8 | 15.6 | 13.8 | 10.7 | 12.3 | 21.7 | 25.0 | 25.3 | 76.4 | 16.3 | 22.2 |
| MAX | 73 | 15 | 18 | 16 | 14 | 98 | 140 | 151 | 88 | 777 | 24 | 90 |
| MIN | 8.5 | 8.1 | 13 | 13 | 8.5 | 8.5 | 8.8 | 17 | 20 | 14 | 4.2 | 14 |
| AC-FT | 970 | 702 | 958 | 847 | 613 | 757 | 1290 | 1540 | 1510 | 4690 | 1000 | 1320 |

CAL YR 1983 TOTAL 5910.0 MEAN 16.2 MAX 115 MIN 8.0 AC-FT 11720
WTR YR 1984 TOTAL 8166.1 MEAN 22.3 MAX 777 MIN 4.2 AC-FT 16200

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## 06869500 SALINE RIVER AT TESCOTT, KS

LOCATION.--Lat 39 deg 00 min 15 sec, long 97 deg 52 min 26 sec, in NE1/4 SE1/4 SE1/4 sec.16, T.12 S., R.5 W., Ottawa County, Hydrologic Unit 10260010, on right bank at downstream side of highway bridge, 0.5 mi south of Tescott, 0.5 mi upstream from Dry Creek, and at mile 68.5.

DRAINAGE AREA.--2,820 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1919 to current year.

REVISED RECORDS.--WSP 506: Drainage area. WSP 856: 1931. WSP 1310: 1926-28(M), 1935(M), 1945(M), 1947-48(M). WSP 1919: 1922, 1960.

GAGE.--Water-stage recorders. Datum of gage is 1,265.34 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 23, 1934, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Some diurnal fluctuation caused by power plants above station. Diversions above station for irrigation. Flow moderately regulated since 1964 by Wilson Lake (see sta 06868100).

AVERAGE DISCHARGE.--65 years, 209 cu ft per sec, 151,400 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,400 cu ft per sec July 13, 1951, gage height, 30.06 ft, from rating curve extended above 7,000 cu ft per sec on basis of slope-area measurement of peak flow, no flow at times in 1935-36.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 13, 1951, was greatest known since at least 1903 and exceeded the flood of May-June 1903 by about 1.0 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,160 cu ft per sec June 29, gage height, 20.16 ft; minimum daily, 16 cu ft per sec Dec. 19-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 21 | 33 | 21 | 22 | 120 | 41 | 48 | 1410 | 52 | 223 | 46 | 20 |
| 2 | 21 | 32 | 29 | 23 | 125 | 42 | 58 | 1180 | 52 | 155 | 44 | 23 |
| 3 | 22 | 26 | 32 | 24 | 115 | 42 | 176 | 582 | 56 | 129 | 95 | 23 |
| 4 | 22 | 23 | 25 | 26 | 100 | 42 | 380 | 402 | 67 | 114 | 54 | 22 |
| 5 | 22 | 24 | 33 | 29 | 88 | 42 | 409 | 273 | 64 | 102 | 40 | 23 |
| 6 | 21 | 26 | 29 | 32 | 79 | 42 | 308 | 206 | 59 | 94 | 35 | 21 |
| 7 | 21 | 25 | 26 | 34 | 65 | 43 | 186 | 199 | 60 | 88 | 39 | 21 |
| 8 | 22 | 26 | 30 | 40 | 44 | 43 | 128 | 221 | 60 | 95 | 42 | 22 |
| 9 | 22 | 28 | 29 | 43 | 43 | 42 | 95 | 269 | 56 | 83 | 35 | 22 |
| 10 | 22 | 27 | 29 | 43 | 40 | 43 | 85 | 303 | 152 | 73 | 25 | 21 |
| 11 | 25 | 26 | 33 | 39 | 40 | 42 | 115 | 204 | 111 | 71 | 20 | 22 |
| 12 | 26 | 26 | 25 | 33 | 40 | 91 | 139 | 155 | 59 | 67 | 21 | 22 |
| 13 | 28 | 26 | 25 | 33 | 42 | 72 | 134 | 193 | 75 | 62 | 31 | 23 |
| 14 | 77 | 24 | 23 | 33 | 44 | 46 | 122 | 247 | 52 | 59 | 29 | 27 |
| 15 | 123 | 25 | 23 | 33 | 46 | 44 | 146 | 114 | 68 | 116 | 27 | 34 |
| 16 | 49 | 26 | 22 | 31 | 45 | 44 | 205 | 94 | 82 | 125 | 28 | 79 |
| 17 | 27 | 24 | 20 | 27 | 45 | 47 | 93 | 87 | 55 | 67 | 28 | 106 |
| 18 | 20 | 23 | 17 | 26 | 45 | 52 | 70 | 81 | 43 | 58 | 27 | 42 |
| 19 | 21 | 24 | 16 | 26 | 45 | 58 | 63 | 78 | 39 | 60 | 27 | 31 |
| 20 | 24 | 27 | 16 | 27 | 45 | 57 | 61 | 78 | 36 | 61 | 26 | 29 |
| 21 | 50 | 30 | 16 | 28 | 45 | 75 | 64 | 79 | 34 | 56 | 30 | 27 |
| 22 | 58 | 29 | 16 | 29 | 44 | 131 | 94 | 82 | 60 | 58 | 38 | 26 |
| 23 | 35 | 29 | 16 | 30 | 43 | 105 | 626 | 82 | 224 | 54 | 44 | 26 |
| 24 | 31 | 29 | 17 | 30 | 43 | 144 | 902 | 83 | 337 | 51 | 33 | 26 |
| 25 | 27 | 28 | 18 | 31 | 42 | 201 | 444 | 72 | 178 | 48 | 31 | 25 |
| 26 | 21 | 29 | 20 | 32 | 42 | 147 | 224 | 64 | 130 | 78 | 28 | 25 |
| 27 | 19 | 33 | 23 | 35 | 42 | 94 | 156 | 59 | 467 | 626 | 25 | 26 |
| 28 | 21 | 32 | 22 | 38 | 42 | 76 | 120 | 57 | 1620 | 679 | 23 | 27 |
| 29 | 25 | 32 | 20 | 43 | 41 | 65 | 261 | 57 | 2080 | 232 | 22 | 28 |
| 30 | 25 | 31 | 21 | 68 | --- | 57 | 1360 | 54 | 1120 | 66 | 22 | 28 |
| 31 | 26 | --- | 21 | 110 | --- | 51 | --- | 52 | --- | 52 | 20 | --- |
| TOTAL | 974 | 823 | 713 | 1098 | 1640 | 2121 | 7272 | 7117 | 7548 | 3902 | 1035 | 897 |
| MEAN | 31.4 | 27.4 | 23.0 | 35.4 | 56.6 | 68.4 | 242 | 230 | 252 | 126 | 33.4 | 29.9 |
| MAX | 123 | 33 | 33 | 110 | 125 | 201 | 1360 | 1410 | 2080 | 679 | 95 | 106 |
| MIN | 19 | 23 | 16 | 22 | 40 | 41 | 48 | 52 | 34 | 48 | 20 | 20 |
| AC-FT | 1930 | 1630 | 1410 | 2180 | 3250 | 4210 | 14420 | 14120 | 14970 | 7740 | 2050 | 1780 |

CAL YR 1983 TOTAL 26829 MEAN 73.5 MAX 835 MIN 16 AC-FT 53220
WTR YR 1984 TOTAL 35140 MEAN 96.0 MAX 2080 MIN 16 AC-FT 69700

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## 06869500 SALINE RIVER AT TESCOTT, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-53, 1960 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1949 to September 1953, August 1959 to September 1975.
WATER TEMPERATURES: December 1949 to September 1953, August 1959 to September 1975.
SUSPENDED-SEDIMENT DISCHARGE: August 1959 to June 1970.

REMARKS.--Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV | | | | | |
| 15... | 16:15 | 26 | 3300 | 7.9 | 9.0 |
| JAN | | | | | |
| 04... | 17:25 | 26 | 3350 | 7.6 | 0.5 |
| FEB | | | | | |
| 08... | 15:20 | 44 | 1850 | 7.6 | 1.0 |
| MAR | | | | | |
| 23... | 17:10 | 72 | 1500 | 8.0 | 6.5 |
| MAY | | | | | |
| 02... | 18:40 | 995 | 680 | 7.8 | 13.0 |
| JUN | | | | | |
| 13... | 18:40 | 75 | 3200 | 7.5 | 25.0 |

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|
| NOV | | | | | |
| 15... | 16:15 | 26 | 39 | 2.7 | -- |
| JAN | | | | | |
| 04... | 17:25 | 26 | 41 | 2.9 | -- |
| FEB | | | | | |
| 08... | 15:20 | 44 | 69 | 8.2 | -- |
| MAR | | | | | |
| 23... | 17:10 | 72 | 44 | 8.6 | -- |
| MAY | | | | | |
| 02... | 18:40 | 995 | 2490 | 6690 | 99 |
| JUN | | | | | |
| 13... | 18:40 | 75 | 69 | 14 | -- |
| AUG | | | | | |
| 02... | 09:45 | 44 | 101 | 12 | -- |
| SEP | | | | | |
| 13... | 09:25 | 23 | 150 | 9.3 | -- |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | SEDI-MENT, SUS-PENDED (MG/L) | BED MAT. FALL DIAM. % FINER THAN .062 MM | BED MAT. FALL DIAM. % FINER THAN .125 MM | BED MAT. FALL DIAM. % FINER THAN .250 MM | BED MAT. FALL DIAM. % FINER THAN .500 MM | BED MAT. FALL DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 15... | 16:15 | 39 | 70 | 76 | 78 | 91 | 98 | 99 | 100 |

## 06870200 SMOKY HILL RIVER AT NEW CAMBRIA, KS

LOCATION.--Lat 38 deg 51 min 49 sec, long 97 deg 28 min 59 sec, in NE1/4 NE1/4 SE1/4 sec.[illegible], T.14 S., R.2 W., Saline County, Hydrologic Unit 10260008, at downstream side of county highway bridge, 1.0 mi southeast of New Cambria, 10.1 mi upstream from Gypsum Creek, about 18.1 mi upstream from Solomon River, and at mile 65.5.

DRAINAGE AREA.--11,730 sq mi, approximately.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,160.19 ft National Geodetic Vertical Datum of 1929. Prior to Mar. 27, 1963, nonrecording gage and Mar. 27, 1963, to July 5, 1977, water-stage recorder at site 2.7 mi downstream at datum 2.23 ft lower.

REMARKS.--Records good except those for winter period, which are poor. Flow moderately regulated since 1948 by Kanopolis Lake 97.7 mi upstream (see sta 06865000) and slightly regulated since 1964 by Wilson Lake (see sta 06868100).

AVERAGE DISCHARGE.--22 years, 573 cu ft per sec, 415,100 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,400 cu ft per sec Oct. 12, 1973, gage height, 30.91 ft, site and datum then in use; minimum, 18 cu ft per sec July 15, 17, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,640 cu ft per sec May 1, gage height, 24.73 ft; minimum daily discharge, 50 cu ft per sec Dec. 15-24, 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 73 | 77 | 83 | 55 | 180 | 92 | 256 | 6510 | 351 | 1790 | 161 | 87 |
| 2 | 71 | 75 | 79 | 55 | 219 | 91 | 310 | 2960 | 343 | 910 | 157 | 95 |
| 3 | 70 | 75 | 79 | 60 | 265 | 91 | 1980 | 2180 | 334 | 475 | 142 | 93 |
| 4 | 69 | 76 | 60 | 65 | 268 | 114 | 4570 | 1680 | 347 | 411 | 138 | 90 |
| 5 | 72 | 77 | 65 | 70 | 219 | 111 | 3530 | 1100 | 352 | 361 | 152 | 90 |
| 6 | 72 | 86 | 70 | 75 | 169 | 105 | 1550 | 917 | 374 | 359 | 155 | 90 |
| 7 | 73 | 87 | 75 | 90 | 158 | 102 | 947 | 831 | 379 | 337 | 145 | 84 |
| 8 | 71 | 88 | 75 | 100 | 163 | 96 | 723 | 787 | 428 | 322 | 176 | 80 |
| 9 | 75 | 93 | 75 | 130 | 159 | 94 | 761 | 735 | 419 | 307 | 146 | 91 |
| 10 | 77 | 105 | 75 | 150 | 149 | 91 | 654 | 691 | 416 | 300 | 147 | 80 |
| 11 | 102 | 100 | 75 | 140 | 135 | 90 | 540 | 701 | 412 | 242 | 137 | 71 |
| 12 | 109 | 94 | 70 | 120 | 135 | 91 | 913 | 674 | 398 | 271 | 124 | 88 |
| 13 | 99 | 89 | 60 | 130 | 130 | 92 | 1010 | 604 | 394 | 256 | 116 | 75 |
| 14 | 92 | 84 | 55 | 120 | 122 | 103 | 641 | 557 | 347 | 248 | 112 | 88 |
| 15 | 86 | 79 | 50 | 110 | 116 | 137 | 488 | 570 | 455 | 238 | 106 | 106 |
| 16 | 79 | 78 | 50 | 105 | 110 | 112 | 413 | 564 | 394 | 232 | 105 | 103 |
| 17 | 136 | 77 | 50 | 100 | 109 | 192 | 406 | 495 | 329 | 239 | 100 | 89 |
| 18 | 109 | 81 | 50 | 95 | 109 | 287 | 420 | 467 | 326 | 260 | 96 | 97 |
| 19 | 99 | 83 | 50 | 90 | 106 | 1260 | 340 | 461 | 307 | 224 | 95 | 149 |
| 20 | 98 | 82 | 50 | 85 | 106 | 1610 | 333 | 456 | 298 | 194 | 95 | 117 |
| 21 | 102 | 78 | 50 | 85 | 105 | 1500 | 805 | 444 | 290 | 183 | 501 | 90 |
| 22 | 103 | 76 | 50 | 85 | 103 | 2400 | 1330 | 438 | 301 | 185 | 497 | 80 |
| 23 | 106 | 75 | 50 | 85 | 101 | 1330 | 1080 | 632 | 526 | 181 | 194 | 79 |
| 24 | 115 | 78 | 50 | 85 | 102 | 1000 | 890 | 425 | 1340 | 171 | 135 | 76 |
| 25 | 99 | 79 | 55 | 85 | 98 | 2330 | 1120 | 412 | 751 | 166 | 129 | 72 |
| 26 | 83 | 80 | 55 | 90 | 97 | 1670 | 963 | 404 | 649 | 157 | 146 | 74 |
| 27 | 79 | 99 | 55 | 95 | 95 | 806 | 634 | 417 | 913 | 146 | 138 | 81 |
| 28 | 75 | 102 | 50 | 105 | 92 | 552 | 481 | 423 | 627 | 216 | 120 | 83 |
| 29 | 70 | 96 | 50 | 115 | 93 | 408 | 807 | 402 | 1020 | 615 | 118 | 93 |
| 30 | 85 | 92 | 50 | 130 | --- | 327 | 5270 | 376 | 1630 | 511 | 104 | 82 |
| 31 | 82 | --- | 55 | 150 | --- | 280 | --- | 365 | --- | 274 | 94 | --- |
| TOTAL | 2734 | 2539 | 1866 | 3045 | 4042 | 17369 | 34165 | 28478 | 15352 | 10857 | 4801 | 2654 |
| MEAN | 88.2 | 84.6 | 60.2 | 98.2 | 139 | 560 | 1139 | 919 | 512 | 350 | 155 | 88.5 |
| MAX | 136 | 105 | 83 | 150 | 268 | 2400 | 5270 | 6510 | 1630 | 1790 | 501 | 149 |
| MIN | 69 | 75 | 50 | 55 | 92 | 90 | 256 | 365 | 290 | 146 | 94 | 72 |
| AC-FT | 5420 | 5040 | 3700 | 6040 | 8020 | 34450 | 67770 | 56490 | 30450 | 21530 | 9520 | 5260 |

CAL YR 1983 TOTAL 81989 MEAN 225 MAX 1930 MIN 50 AC-FT 162600
WTR YR 1984 TOTAL 127902 MEAN 349 MAX 6510 MIN 50 AC-FT 253700

## 06871000 NORTH FORK SOLOMON RIVER AT GLADE, KS

LOCATION.--Lat 39 deg 40 min 40 sec, long 99 deg 15 min 30 sec, in NW1/4 SW1/4 sec.25, T.4 S., R.18 W., Phillips County, Hydrologic Unit 10260011, at downstream side of bridge on U.S. Highway 183, 0.5 mi south of Glade.

DRAINAGE AREA.--849 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,754.04 ft National Geodetic Vertical Datum of 1929. Prior to Feb. 17, 1965, at datum 2.00 ft higher.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--32 years, 27.1 cu ft per sec, 19,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,300 cu ft per sec June 16, 1957, gage height, 18.55 ft, present datum; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 481 cu ft per sec June 15, gage height, 5.77 ft, no peak above base of 2,000 cu ft per sec; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .09 | .09 | .00 | .00 | .00 | 3.5 | 15 | 55 | 22 | 4.2 | .00 | .00 |
| 2 | .09 | .09 | .00 | .00 | .00 | 2.4 | 27 | 53 | 21 | 4.3 | .00 | .00 |
| 3 | .10 | .09 | .00 | .00 | .00 | 2.2 | 35 | 46 | 20 | 3.5 | .00 | .00 |
| 4 | .10 | .08 | .00 | .00 | .00 | 2.2 | 51 | 44 | 21 | 2.7 | .00 | .00 |
| 5 | .13 | .08 | .00 | .00 | .00 | 3.0 | 43 | 45 | 20 | 2.5 | .00 | .00 |
| 6 | .14 | .08 | .00 | .00 | .00 | 2.7 | 36 | 45 | 20 | 2.0 | .00 | .00 |
| 7 | .14 | .08 | .00 | .00 | .00 | 2.7 | 32 | 44 | 18 | 1.7 | .00 | .00 |
| 8 | .12 | .07 | .00 | .00 | .00 | 2.5 | 28 | 45 | 16 | 1.6 | .00 | .00 |
| 9 | .12 | .07 | .00 | .00 | .00 | 2.2 | 27 | 44 | 24 | 1.2 | .00 | .00 |
| 10 | .13 | .07 | .00 | .00 | .00 | 2.2 | 26 | 39 | 19 | 1.1 | .00 | .00 |
| 11 | .12 | .06 | .00 | .00 | .00 | 2.5 | 24 | 37 | 17 | .96 | .00 | .00 |
| 12 | .13 | .06 | .00 | .00 | .00 | 3.0 | 22 | 35 | 16 | .94 | .00 | .00 |
| 13 | .15 | .06 | .00 | .00 | .00 | 3.0 | 20 | 34 | 16 | .89 | .00 | .00 |
| 14 | .16 | .06 | .00 | .00 | .55 | 5.5 | 19 | 33 | 15 | .76 | .00 | .00 |
| 15 | .17 | .05 | .00 | .00 | 1.0 | 5.0 | 17 | 31 | 43 | .61 | .00 | .00 |
| 16 | .15 | .05 | .00 | .00 | 1.0 | 5.0 | 16 | 31 | 100 | .60 | .00 | .00 |
| 17 | .16 | .05 | .00 | .00 | 1.4 | 4.5 | 16 | 29 | 73 | .62 | .00 | .00 |
| 18 | .18 | .05 | .00 | .00 | 1.5 | 3.0 | 15 | 30 | 18 | .47 | .00 | .00 |
| 19 | .17 | .05 | .00 | .00 | 1.4 | 2.6 | 15 | 33 | 13 | .60 | .00 | .00 |
| 20 | .15 | .02 | .00 | .00 | 1.4 | 5.0 | 19 | 34 | 11 | .29 | .00 | .00 |
| 21 | .15 | .01 | .00 | .00 | 1.5 | 9.2 | 43 | 35 | 47 | .03 | .00 | .00 |
| 22 | .15 | .00 | .00 | .00 | 2.5 | 10 | 58 | 33 | 22 | .00 | .00 | .00 |
| 23 | .16 | .00 | .00 | .00 | 2.4 | 13 | 61 | 30 | 15 | .00 | .00 | .00 |
| 24 | .15 | .00 | .00 | .00 | 2.4 | 13 | 46 | 30 | 11 | .00 | .00 | .00 |
| 25 | .15 | .00 | .00 | .00 | 2.5 | 13 | 39 | 28 | 9.7 | .00 | .00 | .00 |
| 26 | .10 | .00 | .00 | .00 | 3.0 | 17 | 34 | 26 | 9.2 | .00 | .00 | .00 |
| 27 | .11 | .00 | .00 | .00 | 3.0 | 18 | 31 | 26 | 7.4 | .00 | .00 | .00 |
| 28 | .10 | .00 | .00 | .00 | 2.6 | 19 | 30 | 24 | 6.5 | .00 | .00 | .00 |
| 29 | .10 | .00 | .00 | .00 | 2.4 | 17 | 29 | 24 | 5.5 | .00 | .00 | .00 |
| 30 | .09 | .00 | .00 | .00 | --- | 15 | 28 | 24 | 4.5 | .00 | .00 | .00 |
| 31 | .09 | --- | .00 | .00 | --- | 15 | --- | 24 | --- | .00 | .00 | --- |
| TOTAL | 4.05 | 1.32 | .00 | .00 | 30.55 | 223.9 | 902 | 1091 | 660.8 | 31.37 | .00 | .00 |
| MEAN | .13 | .044 | .000 | .000 | 1.05 | 7.22 | 30.1 | 35.2 | 22.0 | 1.01 | .000 | .000 |
| MAX | .18 | .09 | .00 | .00 | 3.0 | 19 | 61 | 55 | 100 | 4.3 | .00 | .00 |
| MIN | .09 | .00 | .00 | .00 | .00 | 2.2 | 15 | 24 | 4.5 | .00 | .00 | .00 |
| AC-FT | 8.0 | 2.6 | .00 | .00 | 61 | 444 | 1790 | 2160 | 1310 | 62 | .00 | .00 |

CAL YR 1983 TOTAL 3053.73 MEAN 5.37 MAX 271 MIN .00 AC-FT 6060
WTR YR 1984 TOTAL 2944.99 MEAN 8.05 MAX 100 MIN .00 AC-FT 5840

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## 06871000 NORTH FORK SOLOMON RIVER AT GLADE, KS--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| JUN | | | | | |
| 14... | 13:05 | 16 | 865 | 8.5 | 27.5 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| NOV | | | | |
| 21... | 14:25 | 0.01 | 94 | 0.0 |
| MAR | | | | |
| 27... | 15:00 | 19 | 113 | 5.8 |

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## 06871500 BOW CREEK NEAR STOCKTON, KS

LOCATION.--Lat 39 deg 33 min 46 sec, long 99 deg 17 min 04 sec, in SW1/4 NW1/4 sec.1, T.6 S., R.18 W., Rooks County, Hydrologic Unit 10260011, at downstream side of bridge on U.S. Highway 183, 8.5 mi north of Stockton.

DRAINAGE AREA.--341 sq mi.

PERIOD OF RECORD.--November 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,801.80 ft National Geodetic Vertical Datum of 1929. Prior to June 28, 1951, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--33 years, 13.3 cu ft per sec, 9,640 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 cu ft per sec July 12, 1951, gage height, 13.6 ft, from rating curve extended above 5,900 cu ft per sec on basis of contracted-opening measurement of peak flow; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| June 15 | 2200 | *9,300 | 13.10 | June 17 | 0200 | 1,160 | 8.62 |

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | 7.0 | 6.4 | 8.8 | 38 | 10 | 18 | 2.4 | .28 |
| 2 | .00 | .00 | .00 | .00 | 6.0 | 6.2 | 39 | 26 | 9.9 | 17 | 2.4 | .46 |
| 3 | .00 | .00 | .00 | .00 | 5.6 | 6.0 | 39 | 24 | 9.4 | 16 | 2.3 | .31 |
| 4 | .00 | .00 | .00 | .00 | 4.4 | 7.0 | 30 | 21 | 9.5 | 15 | 2.2 | .35 |
| 5 | .00 | .00 | .00 | .00 | 4.5 | 6.0 | 19 | 20 | 9.0 | 14 | 2.1 | .34 |
| 6 | .00 | .00 | .00 | .00 | 5.3 | 5.8 | 15 | 21 | 9.1 | 13 | 1.9 | .25 |
| 7 | .00 | .00 | .00 | .00 | 5.5 | 5.9 | 13 | 23 | 8.4 | 12 | 1.9 | .18 |
| 8 | .00 | .00 | .00 | .00 | 5.9 | 5.6 | 12 | 21 | 8.0 | 11 | 2.0 | .31 |
| 9 | .00 | .00 | .00 | .00 | 6.1 | 5.6 | 11 | 18 | 54 | 10 | 1.7 | .26 |
| 10 | .00 | .00 | .00 | .00 | 6.1 | 5.5 | 11 | 18 | 13 | 9.0 | 1.7 | .24 |
| 11 | .00 | .00 | .00 | .00 | 6.3 | 6.1 | 11 | 17 | 10 | 8.0 | 1.5 | .31 |
| 12 | .00 | .00 | .00 | .00 | 7.0 | 6.0 | 11 | 16 | 11 | 7.0 | 1.4 | .26 |
| 13 | .00 | .00 | .00 | .00 | 5.9 | 7.1 | 12 | 16 | 14 | 6.6 | 1.2 | .26 |
| 14 | .00 | .00 | .00 | .00 | 5.3 | 6.4 | 12 | 15 | 8.9 | 6.2 | 1.0 | .27 |
| 15 | .00 | .00 | .00 | .00 | 5.3 | 6.2 | 12 | 15 | 967 | 5.8 | .89 | .31 |
| 16 | .00 | .00 | .00 | .00 | 6.0 | 6.2 | 11 | 14 | 888 | 5.6 | .74 | .31 |
| 17 | .00 | .00 | .00 | .00 | 5.2 | 6.7 | 11 | 14 | 286 | 5.3 | .64 | .30 |
| 18 | .00 | .00 | .00 | .00 | 5.9 | 6.5 | 11 | 14 | 35 | 5.2 | .60 | .24 |
| 19 | .00 | .20 | .00 | .00 | 5.8 | 7.8 | 11 | 15 | 26 | 5.0 | .65 | .17 |
| 20 | .00 | .24 | .00 | .00 | 5.1 | 9.6 | 12 | 15 | 27 | 4.7 | .77 | .15 |
| 21 | .00 | .05 | .00 | .00 | 6.0 | 13 | 81 | 15 | 26 | 4.5 | 1.2 | .14 |
| 22 | .00 | .06 | .00 | .00 | 6.8 | 12 | 59 | 14 | 24 | 4.2 | 1.2 | .18 |
| 23 | .00 | .04 | .00 | .00 | 5.8 | 8.4 | 34 | 13 | 24 | 4.0 | .97 | .20 |
| 24 | .00 | .02 | .00 | .00 | 5.4 | 7.8 | 24 | 13 | 22 | 3.8 | .77 | .19 |
| 25 | .00 | .04 | .00 | .00 | 5.5 | 7.6 | 21 | 12 | 21 | 3.7 | .77 | .25 |
| 26 | .00 | .06 | .00 | .00 | 5.6 | 11 | 18 | 12 | 21 | 3.7 | .76 | .28 |
| 27 | .00 | .01 | .00 | .00 | 5.5 | 12 | 17 | 12 | 20 | 3.5 | .56 | .37 |
| 28 | .00 | .01 | .00 | .50 | 4.8 | 12 | 15 | 11 | 19 | 3.0 | .42 | .36 |
| 29 | .00 | .00 | .00 | 1.5 | 4.9 | 10 | 39 | 11 | 19 | 2.9 | .32 | .34 |
| 30 | .00 | .00 | .00 | 4.0 | --- | 9.1 | 66 | 11 | 18 | 2.6 | .32 | .36 |
| 31 | .00 | --- | .00 | 6.0 | --- | 9.0 | --- | 11 | --- | 2.5 | .27 | --- |
| TOTAL | .00 | .73 | .00 | 12.00 | 164.9 | 240.5 | 685.8 | 516 | 2627.2 | 232.7 | 37.55 | 8.22 |
| MEAN | .000 | .024 | .000 | .39 | 5.69 | 7.76 | 22.9 | 16.6 | 87.6 | 7.51 | 1.21 | .27 |
| MAX | .00 | .24 | .00 | 6.0 | 7.0 | 13 | 81 | 38 | 967 | 18 | 2.4 | .46 |
| MIN | .00 | .00 | .00 | .00 | 4.4 | 5.5 | 8.8 | 11 | 8.0 | 2.5 | .27 | .14 |
| AC-FT | .00 | 1.4 | .00 | 24 | 327 | 477 | 1360 | 1020 | 5210 | 462 | 74 | 16 |

CAL YR 1983 TOTAL 1397.35 MEAN 3.83 MAX 221 MIN .00 AC-FT 2770
WTR YR 1984 TOTAL 4525.60 MEAN 12.4 MAX 967 MIN .00 AC-FT 8980

## 06871700 KIRWIN RESERVOIR AT KIRWIN, KS

LOCATION.--Lat 39 deg 39 min 49 sec, long 99 deg 07 min 29 sec, in SE1/4 NE1/4 sec.33, T.4 S., R.16 W., Phillips County, Hydrologic Unit 10260011, in control-house structure at outlet works of Kirwin dam on North Fork Solomon River, 0.5 mi south of Kirwin, 1.6 mi upstream from Deer Creek, and at mile 67.8.

DRAINAGE AREA.--1,367 sq mi.

PERIOD OF RECORD.--September 1955 to current year. Monthly records only prior to October 1956.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Aug. 7, 1957, nonrecording gages at same site and datum.

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Sept. 19, 1955. Total capacity, 512,000 acre-ft, consisting of the following: Dead storage, 6,400 acre-ft below elevation 1,693.0 ft, sill of trash-rack structure; irrigation pool, 93,300 acre-ft between elevations 1,693.0 ft and 1,729.3 ft; flood control pool, 214,900 acre-ft between elevations 1,729.3 ft and 1,757.3 ft, crest of uncontrolled spillway; and uncontrolled storage 198,400 acre-ft between elevations 1,757.3 ft and 1,773.0 ft. Reservoir is used to store water for flood control and irrigation in Kirwin Unit of 11,500 acres, Missouri River Basin project. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,732.15 ft June 10, 1961, contents, 114,900 acre-ft; minimum elevation since first filling of irrigation pool, 1,695.46 ft Feb. 10-14, 1981, contents, 8,330 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,706.17 ft June 26, contents, 22,270 acre-ft; minimum elevation, 1,696.85 ft Oct. 28, contents, 9,640 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

| | | | | | |
|---|---|---|---|---|---|
| 1,696 | 8,820 | 1,700 | 13,210 | 1,704 | 18,000 |
| 1,697 | 9,780 | 1,701 | 14,510 | 1,705 | 20,350 |
| 1,698 | 10,840 | 1,702 | 15,880 | 1,706 | 21,990 |
| 1,699 | 11,980 | 1,703 | 17,310 | 1,707 | 23,720 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1697.15 | 1696.89 | 1697.01 | 1696.98 | 1697.04 | 1697.15 | 1697.93 | 1700.89 | 1702.75 | 1706.16 | 1702.50 | 1697.40 |
| 2 | 1697.13 | 1696.89 | 1697.01 | 1696.98 | 1697.03 | 1697.15 | 1698.18 | 1701.03 | 1702.76 | 1706.15 | 1702.24 | 1697.37 |
| 3 | 1697.12 | 1696.90 | 1697.01 | 1696.97 | 1697.03 | 1697.18 | 1698.29 | 1701.14 | 1702.79 | 1706.15 | 1701.98 | 1697.36 |
| 4 | 1697.10 | 1696.90 | 1697.01 | 1696.98 | 1697.03 | 1697.20 | 1698.39 | 1701.24 | 1702.84 | 1706.15 | 1701.74 | 1697.35 |
| 5 | 1697.08 | 1696.90 | 1697.00 | 1696.98 | 1697.03 | 1697.20 | 1698.50 | 1701.35 | 1702.86 | 1706.15 | 1701.47 | 1697.32 |
| 6 | 1697.06 | 1696.90 | 1697.00 | 1696.98 | 1697.03 | 1697.21 | 1698.60 | 1701.48 | 1702.86 | 1706.11 | 1701.19 | 1697.33 |
| 7 | 1697.05 | 1696.89 | 1697.00 | 1696.98 | 1697.03 | 1697.19 | 1698.68 | 1701.56 | 1702.89 | 1706.09 | 1700.91 | 1697.25 |
| 8 | 1697.02 | 1696.89 | 1696.99 | 1696.98 | 1697.03 | 1697.20 | 1698.73 | 1701.65 | 1702.89 | 1706.09 | 1700.63 | 1697.25 |
| 9 | 1697.01 | 1696.89 | 1696.99 | 1696.98 | 1697.03 | 1697.20 | 1698.83 | 1701.72 | 1702.99 | 1706.06 | 1700.32 | 1697.24 |
| 10 | 1697.02 | 1696.88 | 1697.00 | 1696.98 | 1697.03 | 1697.19 | 1698.90 | 1701.79 | 1703.00 | 1706.03 | 1699.95 | 1697.20 |
| 11 | 1696.99 | 1696.86 | 1697.00 | 1696.98 | 1697.05 | 1697.19 | 1699.04 | 1701.87 | 1703.05 | 1706.02 | 1699.67 | 1697.21 |
| 12 | 1696.97 | 1696.87 | 1697.00 | 1696.97 | 1697.05 | 1697.24 | 1699.07 | 1701.95 | 1703.10 | 1705.99 | 1699.37 | 1697.18 |
| 13 | 1696.96 | 1696.88 | 1697.00 | 1696.97 | 1697.05 | 1697.25 | 1699.08 | 1701.99 | 1703.10 | 1705.97 | 1699.05 | 1697.17 |
| 14 | 1696.96 | 1696.88 | 1696.99 | 1696.97 | 1697.05 | 1697.25 | 1699.09 | 1702.04 | 1703.11 | 1705.93 | 1698.74 | 1697.16 |
| 15 | 1696.95 | 1696.87 | 1696.99 | 1697.00 | 1697.04 | 1697.26 | 1699.13 | 1702.08 | 1703.15 | 1705.91 | 1698.41 | 1697.13 |
| 16 | 1696.93 | 1696.87 | 1696.99 | 1697.01 | 1697.07 | 1697.28 | 1699.17 | 1702.15 | 1705.45 | 1705.85 | 1698.07 | 1697.11 |
| 17 | 1696.92 | 1696.86 | 1696.98 | 1697.01 | 1697.05 | 1697.28 | 1699.19 | 1702.24 | 1705.82 | 1705.75 | 1697.75 | 1697.10 |
| 18 | 1696.92 | 1696.86 | 1696.98 | 1697.01 | 1697.14 | 1697.42 | 1699.22 | 1702.25 | 1705.91 | 1705.60 | 1697.61 | 1697.10 |
| 19 | 1696.95 | 1696.93 | 1696.98 | 1697.01 | 1697.14 | 1697.44 | 1699.26 | 1702.31 | 1705.95 | 1705.46 | 1697.62 | 1697.10 |
| 20 | 1696.91 | 1696.94 | 1696.98 | 1697.01 | 1697.14 | 1697.44 | 1699.39 | 1702.36 | 1705.99 | 1705.29 | 1697.60 | 1697.07 |
| 21 | 1696.91 | 1696.91 | 1696.98 | 1697.01 | 1697.14 | 1697.46 | 1699.59 | 1702.42 | 1706.05 | 1705.05 | 1697.62 | 1697.06 |
| 22 | 1696.91 | 1696.92 | 1696.97 | 1697.01 | 1697.13 | 1697.50 | 1699.79 | 1702.47 | 1706.11 | 1704.89 | 1697.62 | 1697.05 |
| 23 | 1696.90 | 1696.92 | 1696.97 | 1697.01 | 1697.14 | 1697.52 | 1699.95 | 1702.54 | 1706.12 | 1704.71 | 1697.59 | 1697.05 |
| 24 | 1696.88 | 1696.91 | 1696.95 | 1697.01 | 1697.14 | 1697.59 | 1700.07 | 1702.55 | 1706.14 | 1704.50 | 1697.56 | 1696.94 |
| 25 | 1696.89 | 1696.91 | 1696.96 | 1697.01 | 1697.12 | 1697.60 | 1700.20 | 1702.57 | 1706.15 | 1704.27 | 1697.54 | 1696.95 |
| 26 | 1696.88 | 1696.91 | 1696.96 | 1697.01 | 1697.14 | 1697.72 | 1700.29 | 1702.57 | 1706.17 | 1704.03 | 1697.54 | 1696.94 |
| 27 | 1696.88 | 1697.00 | 1696.96 | 1697.02 | 1697.14 | 1697.77 | 1700.34 | 1702.65 | 1706.16 | 1703.79 | 1697.53 | 1696.92 |
| 28 | 1696.85 | 1697.01 | 1696.97 | 1697.02 | 1697.15 | 1697.77 | 1700.36 | 1702.65 | 1706.16 | 1703.54 | 1697.50 | 1696.91 |
| 29 | 1696.89 | 1697.01 | 1696.97 | 1697.02 | 1697.15 | 1697.82 | 1700.57 | 1702.67 | 1706.16 | 1703.28 | 1697.48 | 1696.90 |
| 30 | 1696.89 | 1697.01 | 1696.96 | 1697.03 | --- | 1697.85 | 1700.71 | 1702.71 | 1706.16 | 1703.03 | 1697.44 | 1696.89 |
| 31 | 1696.89 | --- | 1696.98 | 1697.03 | --- | 1697.88 | --- | 1702.74 | --- | 1702.76 | 1697.44 | --- |
| MEAN | 1696.97 | 1696.91 | 1696.99 | 1697.00 | 1697.08 | 1697.40 | 1699.25 | 1702.05 | 1704.49 | 1705.25 | 1699.02 | 1697.13 |
| MAX | 1697.15 | 1697.01 | 1697.01 | 1697.03 | 1697.15 | 1697.88 | 1700.71 | 1702.74 | 1706.17 | 1706.16 | 1702.50 | 1697.40 |
| MIN | 1696.85 | 1696.86 | 1696.95 | 1696.97 | 1697.03 | 1697.15 | 1697.93 | 1700.89 | 1702.75 | 1702.76 | 1697.44 | 1696.89 |
| (+) | 9,680 | 9,800 | 9,760 | 9,820 | 9,940 | 10,710 | 14,120 | 16,930 | 22,250 | 16,960 | 10,230 | 9,680 |
| (#) | -260 | +120 | -40 | +60 | +120 | +770 | +3,410 | +2,810 | +5,320 | -5,290 | -6,730 | -550 |

CAL YR 1983 ........................ (#) -4,190
WTR YR 1984 ........................ (#) -260

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 06871800 NORTH FORK SOLOMON RIVER AT KIRWIN, KS

LOCATION.--Lat 39 deg 39 min 36 sec, long 99 deg 06 min 55 sec, in two channels, in SE1/4 sec.33 (river outlet gage) and SW1/4 sec.34 (spillway gage), T.4 S., R.16 W., Phillips County, Hydrologic Unit 10260012, 200 ft and 600 ft, respectively, downstream from toe of Kirwin Dam, 0.5 mi and 0.8 mi, respectively, south of Kirwin, 1.3 mi upstream from Deer Creek, and at mile 67.2.

DRAINAGE AREA.--1,367 sq mi.

PERIOD OF RECORD.--August 1919 to June 1925, August 1928 to June 1932, December 1941 to current year.

REVISED RECORDS.--WSP 1210: 1919(M). WSP 1440: 1919, 1929, 1931(M), 1942(P), 1944-47, 1948(M), drainage area (present and former sites).

GAGE.--Water-stage recorder and concrete control on river outlet channel. Datum of gage is 1,659.50 ft National Geodetic Vertical Datum of 1929 (U.S. Bureau of Reclamation bench mark). Water-stage recorder on spillway channel. Datum of spillway channel gage is 1,650.81 ft National Geodetic Vertical Datum of 1929 (U.S. Bureau of Reclamation bench mark). See WSP 1919 for history of changes prior to Jan. 30, 1957.

REMARKS.--Records poor. Flow completely regulated by Kirwin Reservoir since 1955 (see sta 06871700). Figures of flow do not include diversion immediately above station into Kirwin Main Canal. Separate records are collected and computed for a river outlet channel and for spillway channel. Figures given herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 cu ft per sec Sept. 15, 1919, gage height, 22.5 ft, site and datum then in use, from rating curve extended above 10,000 cu ft per sec on basis of slope-area and contracted-opening measurements at gage height, 22.3 ft; maximum discharge since construction of Kirwin Dam in 1955, 1,200 cu ft per sec Nov. 16, 1966; no flow at times in 1943, 1948, 1955-67, 1972-84.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1915 reached a stage of about 27 ft, site and datum in use prior to July 1955, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3.3 cu ft per sec Aug. 18; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .01 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 2 | .01 | .00 | .00 | .00 | .00 | .00 | .01 | .00 | .00 | .00 | .00 | .00 |
| 3 | .01 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .03 | .00 |
| 4 | .01 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .03 | .00 |
| 5 | .01 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .08 | .00 |
| 6 | .01 | .01 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .08 | .00 |
| 7 | .01 | .01 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .05 | .00 |
| 8 | .01 | .01 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .10 | .00 |
| 9 | .01 | .01 | .00 | .00 | .01 | .00 | .00 | .00 | .00 | .00 | .14 | .00 |
| 10 | .02 | .00 | .00 | .00 | .01 | .00 | .00 | .00 | .00 | .00 | .10 | .00 |
| 11 | .02 | .00 | .00 | .00 | .02 | .00 | .00 | .00 | .00 | .00 | .10 | .00 |
| 12 | .01 | .00 | .00 | .00 | .02 | .00 | .00 | .00 | .00 | .00 | .08 | .00 |
| 13 | .01 | .00 | .00 | .00 | .02 | .00 | .00 | .00 | .00 | .00 | .08 | .00 |
| 14 | .01 | .00 | .00 | .00 | .02 | .00 | .00 | .00 | .00 | .00 | .08 | .00 |
| 15 | .01 | .00 | .00 | .00 | .02 | .00 | .00 | .00 | .00 | .00 | .10 | .00 |
| 16 | .01 | .00 | .00 | .00 | .03 | .00 | .00 | .00 | .00 | .00 | .10 | .00 |
| 17 | .01 | .00 | .00 | .00 | .03 | .00 | .00 | .00 | .00 | .00 | .08 | .00 |
| 18 | .01 | .00 | .00 | .00 | .06 | .00 | .00 | .00 | .00 | .00 | .64 | .00 |
| 19 | .02 | .00 | .00 | .00 | .06 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 20 | .02 | .00 | .00 | .00 | .06 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 21 | .02 | .00 | .00 | .00 | .06 | .00 | .01 | .00 | .00 | .00 | .00 | .00 |
| 22 | .02 | .00 | .00 | .00 | .06 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 23 | .02 | .00 | .00 | .00 | .05 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 24 | .01 | .00 | .00 | .00 | .05 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 25 | .01 | .00 | .00 | .00 | .04 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 26 | .01 | .00 | .00 | .00 | .06 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 27 | .01 | .00 | .00 | .00 | .05 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .03 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .01 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .01 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .34 | .04 | .00 | .00 | .77 | .00 | .03 | .00 | .00 | .00 | 1.87 | .00 |
| MEAN | .011 | .001 | .000 | .000 | .027 | .000 | .001 | .000 | .000 | .000 | .060 | .000 |
| MAX | .02 | .01 | .00 | .00 | .06 | .00 | .01 | .00 | .00 | .00 | .64 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .7 | .08 | .00 | .00 | 1.5 | .00 | .06 | .00 | .00 | .00 | 3.7 | .00 |

CAL YR 1983 TOTAL 1.78 MEAN .005 MAX .26 MIN .00 AC-FT 3.5
WTR YR 1984 TOTAL 3.05 MEAN .008 MAX .64 MIN .00 AC-FT 6.0

## 06872500 NORTH FORK SOLOMON RIVER AT PORTIS, KS

LOCATION.--Lat 39 deg 33 min 15 sec, long 98 deg 41 min 31 sec, in SW1/4 SW1/4 SW1/4 sec.5, T.6 S., R.12 W., Osborne County, Hydrologic Unit 10260012, at downstream side of bridge on U.S. Highway 281, 0.5 mi south of Portis, and at mile 27.0.

DRAINAGE AREA.--2,315 sq mi, approximately.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1945 to current year. Prior to Oct. 1, 1964, published as "near Downs."

GAGE.--Water-stage recorder. Datum of gage is 1,490.71 ft National Geodetic Vertical Datum of 1929. Prior to Dec. 5, 1946, nonrecording gage and Dec. 5, 1946, to Sept. 30, 1964, water-stage recorder at site 9.0 mi downstream at datum 30.39 ft lower.

REMARKS.--Records fair except those for winter period and those for no gage-height record Apr. 21 to May 22, which are poor. Flow partially regulated by Kirwin Reservoir 40.8 mi upstream beginning Mar. 7, 1955 (see sta 06871700). Flow also affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--39 years, 122 cu ft per sec, 88,390 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,700 cu ft per sec July 12, 1951, gage height, 30.41 ft, site and datum then in use, from rating curve extended above 21,000 cu ft per sec; no flow at times in 1955-56.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 15, 1915, reached a stage about 1.0 ft higher than that of July 12, 1951, from information by Kansas Highway Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,000 cu ft per sec Apr. 23, gage height, 9.76 ft; minimum daily discharge, 0.90 cu ft per sec Dec. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.0 | 2.9 | 7.0 | 8.0 | 58 | 28 | 62 | 400 | 56 | 16 | 8.0 | 4.6 |
| 2 | 9.6 | 2.3 | 6.4 | 9.0 | 51 | 31 | 109 | 310 | 55 | 13 | 6.3 | 5.4 |
| 3 | 9.8 | 2.3 | 7.0 | 10 | 45 | 31 | 361 | 260 | 51 | 12 | 4.8 | 5.7 |
| 4 | 8.8 | 3.6 | 7.0 | 12 | 39 | 32 | 373 | 215 | 50 | 12 | 4.6 | 5.0 |
| 5 | 7.9 | 3.9 | 7.0 | 13 | 37 | 32 | 218 | 200 | 48 | 11 | 11 | 4.5 |
| 6 | 5.4 | 3.6 | 7.5 | 15 | 40 | 37 | 169 | 215 | 46 | 10 | 14 | 4.2 |
| 7 | 5.0 | 5.0 | 7.5 | 14 | 45 | 39 | 130 | 235 | 44 | 9.0 | 13 | 3.6 |
| 8 | 4.3 | 5.0 | 7.0 | 12 | 53 | 33 | 113 | 190 | 39 | 8.0 | 11 | 3.3 |
| 9 | 4.3 | 7.0 | 7.0 | 5.8 | 52 | 30 | 104 | 165 | 60 | 9.5 | 12 | 3.8 |
| 10 | 4.6 | 6.9 | 6.8 | 9.7 | 51 | 30 | 101 | 160 | 147 | 11 | 12 | 3.1 |
| 11 | 3.9 | 6.2 | 6.6 | 16 | 48 | 30 | 97 | 160 | 96 | 13 | 10 | 3.4 |
| 12 | 5.0 | 6.5 | 6.4 | 14 | 46 | 33 | 96 | 150 | 64 | 14 | 10 | 3.7 |
| 13 | 4.6 | 7.0 | 6.0 | 11 | 42 | 32 | 98 | 150 | 57 | 18 | 13 | 3.8 |
| 14 | 4.3 | 8.8 | 5.6 | 10 | 39 | 32 | 93 | 145 | 52 | 14 | 15 | 3.8 |
| 15 | 3.9 | 8.4 | 5.0 | 13 | 42 | 33 | 80 | 145 | 48 | 13 | 14 | 3.9 |
| 16 | 3.2 | 7.1 | 3.5 | 9.7 | 37 | 34 | 77 | 140 | 46 | 14 | 14 | 4.3 |
| 17 | 3.2 | 7.5 | 2.5 | 5.4 | 33 | 38 | 78 | 130 | 43 | 17 | 12 | 5.0 |
| 18 | 2.3 | 7.7 | 2.0 | 1.5 | 38 | 34 | 82 | 140 | 46 | 22 | 8.0 | 5.7 |
| 19 | 2.3 | 9.2 | 1.5 | 1.2 | 33 | 32 | 103 | 150 | 50 | 25 | 6.3 | 5.6 |
| 20 | 1.5 | 8.4 | 1.2 | 1.2 | 31 | 32 | 122 | 140 | 43 | 29 | 5.1 | 5.8 |
| 21 | 1.5 | 8.9 | 1.0 | 1.9 | 31 | 46 | 220 | 130 | 40 | 18 | 5.7 | 4.7 |
| 22 | 1.0 | 8.5 | .90 | 5.6 | 33 | 56 | 480 | 120 | 39 | 14 | 8.0 | 5.0 |
| 23 | 3.9 | 8.0 | 1.2 | 7.9 | 34 | 74 | 780 | 114 | 36 | 10 | 7.7 | 6.7 |
| 24 | 3.9 | 8.0 | 1.7 | 5.4 | 34 | 77 | 350 | 109 | 35 | 7.0 | 9.2 | 7.0 |
| 25 | 2.6 | 7.6 | 2.3 | 5.4 | 34 | 68 | 250 | 87 | 33 | 5.6 | 9.6 | 6.8 |
| 26 | 2.6 | 7.6 | 3.2 | 8.4 | 35 | 66 | 220 | 77 | 31 | 4.5 | 8.8 | 7.0 |
| 27 | 1.8 | 8.0 | 4.3 | 14 | 31 | 74 | 200 | 75 | 29 | 4.1 | 7.3 | 7.5 |
| 28 | 2.3 | 8.0 | 5.5 | 19 | 30 | 107 | 170 | 68 | 29 | 6.3 | 6.5 | 8.2 |
| 29 | 5.0 | 7.9 | 4.0 | 83 | 28 | 88 | 455 | 65 | 26 | 6.0 | 5.7 | 7.7 |
| 30 | 5.0 | 7.4 | 5.5 | 75 | --- | 76 | 670 | 62 | 20 | 8.0 | 4.8 | 7.7 |
| 31 | 3.2 | --- | 7.0 | 66 | --- | 68 | --- | 59 | --- | 8.4 | 4.0 | --- |
| TOTAL | 135.7 | 199.0 | 147.10 | 485.1 | 1150 | 1451 | 6461 | 4766 | 1459 | 382.4 | 281.6 | 156.5 |
| MEAN | 4.38 | 6.63 | 4.75 | 15.6 | 39.7 | 46.8 | 215 | 154 | 48.6 | 12.3 | 9.08 | 5.22 |
| MAX | 9.8 | 9.2 | 7.5 | 83 | 58 | 107 | 780 | 400 | 147 | 29 | 15 | 8.2 |
| MIN | 1.0 | 2.3 | .90 | 1.2 | 28 | 28 | 62 | 59 | 20 | 4.1 | 4.0 | 3.1 |
| AC-FT | 269 | 395 | 292 | 962 | 2280 | 2880 | 12820 | 9450 | 2890 | 758 | 558 | 310 |

CAL YR 1983 TOTAL 7835.70 MEAN 21.4 MAX 568 MIN .90 AC-FT 15490
WTR YR 1984 TOTAL 17074.10 MEAN 46.7 MAX 780 MIN .90 AC-FT 33870

## 06872500 NORTH FORK SOLOMON RIVER AT PORTIS, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | BARO-METRIC PRES-SURE (MM OF HG) |
|---|---|---|---|---|---|---|---|
| OCT | | | | | | | |
| 05... | 11:30 | 8.0 | 690 | 8.0 | 13.0 | 9.2 | 780 |
| NOV | | | | | | | |
| 15... | 15:30 | 8.6 | 1040 | 8.1 | 7.5 | 13.2 | 724 |
| JAN | | | | | | | |
| 05... | 09:50 | 13 | 1200 | 7.9 | 1.0 | -- | 719 |
| FEB | | | | | | | |
| 08... | 10:35 | 45 | 850 | 8.0 | 0.5 | 13.0 | 722 |
| MAR | | | | | | | |
| 28... | 13:00 | 118 | 1050 | 8.2 | 6.0 | 10.7 | 715 |
| JUN | | | | | | | |
| 20... | 11:35 | 44 | 1190 | 8.0 | 24.5 | 7.2 | 720 |
| JUL | | | | | | | |
| 26... | 16:15 | 4.5 | 880 | 8.4 | 30.0 | 13.0 | 720 |

| DATE | HARD-NESS (MG/L AS CACO3) | HARD-NESS NONCAR-BONATE (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY LAB (MG/L AS CACO3) | CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 05... | 280 | 277 | 91 | 12 | 34 | 0.9 | 13 | 207 | 4.0 | 130 | 27 |
| NOV | | | | | | | | | | | |
| 15... | 470 | 465 | 150 | 22 | 65 | 1 | 13 | 312 | 4.8 | 220 | 50 |
| JAN | | | | | | | | | | | |
| 05... | 530 | 532 | 170 | 26 | 73 | 1 | 16 | 334 | 8.1 | 290 | 56 |
| FEB | | | | | | | | | | | |
| 08... | 340 | 341 | 110 | 16 | 37 | 0.9 | 13 | 229 | 4.4 | 170 | 37 |
| JUN | | | | | | | | | | | |
| 20... | 490 | 494 | 160 | 23 | 62 | 1 | 15 | 280 | 5.4 | 260 | 62 |
| JUL | | | | | | | | | | | |
| 26... | 300 | 301 | 91 | 18 | 46 | 1 | 16 | 186 | 1.4 | 160 | 48 |

| DATE | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS N) | PHOS-PHORUS, TOTAL (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 05... | 0.4 | 23 | 463 | 0.63 | 10 | 1.30 | 0.11 | 1.8 | 3.1 | 0.41 |
| NOV | | | | | | | | | | |
| 15... | 0.3 | 26 | 730 | 0.99 | 17 | 0.90 | 0.04 | 1.9 | 2.8 | 0.17 |
| JAN | | | | | | | | | | |
| 05... | 0.3 | 26 | 865 | 1.2 | 30 | 2.70 | 0.04 | 0.5 | 3.2 | 0.10 |
| FEB | | | | | | | | | | |
| 08... | 0.3 | 20 | 553 | 0.75 | 67 | 1.50 | 0.50 | 1.3 | 2.8 | 0.61 |
| JUN | | | | | | | | | | |
| 20... | 0.4 | 27 | 813 | 1.1 | 97 | 1.40 | 0.06 | 0.4 | 1.8 | 0.39 |
| JUL | | | | | | | | | | |
| 26... | 0.4 | 12 | 525 | 0.71 | 6.4 | 0.20 | 0.03 | 1.1 | 1.3 | 0.16 |

## 06873000 SOUTH FORK SOLOMON RIVER ABOVE WEBSTER RESERVOIR, KS

LOCATION.--Lat 39 deg 22 min 26 sec, long 99 deg 34 min 54 sec, in SW1/4 NW1/4 sec.8, T.8 S., R.20 W., Rooks County, Hydrologic Unit 10260013, on left bank at downstream side of highway bridge, 4.0 mi north of Damar, 7 mi downstream from Wild Horse Creek, and 11 mi upstream from Webster Dam.

DRAINAGE AREA.--1,040 sq mi, approximately.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1945 to current year. Prior to October 1953, published as "at Webster."

REVISED RECORDS.--WSP 1440: 1945-48, 1950.

GAGE.--Water-stage recorders. Datum of gage is 1,936.51 ft National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to May 17, 1946, nonrecording gage, May 17, 1946, to May 20, 1951, water-stage recorder, and May 21 to Sept. 30, 1951, nonrecording gage, all at site 8.0 mi downstream at datum 94.52 ft lower. Oct. 1, 1951, to May 22, 1952, nonrecording gage at bridge near Stockton, 23 mi downstream, at different datum. May 23, 1952, to May 23, 1954, water-stage recorder at site 8.0 mi downstream at datum 94.52 ft lower. Since July 30, 1980, supplementary water-stage recorder at site 0.4 mi downstream at datum 3.00 ft lower.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--39 years, 59.3 cu ft per sec, 42,960 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,200 cu ft per sec July 12, 1951, gage height, 14.9 ft, from floodmarks, site and datum then in use, from rating curve extended above 11,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1908, 13.4 ft June 1908, present site and datum, discharge not determined, from information obtained from Kansas Highway Commission.

EXTREMES FOR CURRENT YEAR.--Maximum recorded discharge, 160 cu ft per sec Apr. 30, gage height, 2.96 ft, no peak above base of 3,200 cu ft per sec; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .06 | .00 | .01 | 2.6 | 4.2 | 30 | 132 | 30 | 9.5 | .16 | .00 |
| 2 | .00 | .04 | .01 | .01 | 1.9 | 4.2 | 65 | 128 | 29 | 9.2 | .11 | .00 |
| 3 | .00 | .06 | .01 | .01 | 1.2 | 4.0 | 92 | 111 | 28 | 9.8 | .14 | .00 |
| 4 | .00 | .06 | .01 | .01 | 1.1 | 5.0 | 79 | 100 | 29 | 9.2 | .13 | .00 |
| 5 | .00 | .05 | .01 | .02 | .63 | 5.2 | 71 | 93 | 29 | 7.6 | .12 | .00 |
| 6 | .00 | .03 | .01 | .02 | 1.4 | 5.8 | 63 | 114 | 27 | 6.5 | .09 | .00 |
| 7 | .00 | .05 | .04 | .02 | 1.2 | 5.8 | 57 | 122 | 24 | 6.2 | .26 | .00 |
| 8 | .01 | .04 | .09 | .02 | 1.1 | 6.8 | 52 | 102 | 21 | 6.0 | .29 | .00 |
| 9 | .02 | .04 | .11 | .01 | 1.1 | 8.4 | 49 | 89 | 32 | 4.8 | .39 | .00 |
| 10 | .04 | .04 | .09 | .01 | .94 | 8.9 | 48 | 86 | 42 | 3.5 | .30 | .00 |
| 11 | .03 | .05 | .09 | .02 | .82 | 9.2 | 51 | 83 | 29 | 3.1 | .32 | .00 |
| 12 | .04 | .05 | .09 | .01 | .72 | 11 | 49 | 77 | 26 | 2.4 | .25 | .00 |
| 13 | .05 | .06 | .09 | .00 | .94 | 10 | 44 | 73 | 25 | 1.7 | .20 | .00 |
| 14 | .04 | .04 | .03 | .00 | .82 | 13 | 41 | 66 | 24 | 1.2 | .20 | .00 |
| 15 | .04 | .04 | .03 | .00 | .94 | 13 | 40 | 64 | 23 | 1.1 | .13 | .00 |
| 16 | .03 | .04 | .01 | .00 | .94 | 12 | 37 | 61 | 23 | .82 | .06 | .00 |
| 17 | .04 | .03 | .01 | .00 | 1.2 | 14 | 36 | 59 | 20 | .82 | .00 | .00 |
| 18 | .06 | .03 | .00 | .00 | 1.9 | 14 | 35 | 59 | 19 | .55 | .00 | .00 |
| 19 | .04 | .03 | .00 | .00 | 1.4 | 16 | 36 | 67 | 16 | .42 | .03 | .00 |
| 20 | .03 | .03 | .00 | .00 | 2.4 | 18 | 37 | 69 | 14 | .37 | .06 | .00 |
| 21 | .04 | .03 | .00 | .01 | 2.4 | 24 | 90 | 64 | 23 | .32 | .14 | .00 |
| 22 | .05 | .03 | .00 | .01 | 2.8 | 32 | 120 | 57 | 43 | .24 | .08 | .00 |
| 23 | .05 | .02 | .00 | .01 | 3.1 | 33 | 111 | 52 | 28 | .20 | .05 | .00 |
| 24 | .04 | .03 | .00 | .02 | 2.8 | 37 | 93 | 49 | 21 | .20 | .03 | .00 |
| 25 | .04 | .03 | .00 | .02 | 3.3 | 38 | 84 | 43 | 17 | .14 | .07 | .00 |
| 26 | .05 | .02 | .01 | .02 | 2.6 | 48 | 79 | 41 | 16 | .14 | .32 | .00 |
| 27 | .05 | .01 | .01 | .02 | 2.2 | 56 | 73 | 40 | 15 | .15 | .00 | .00 |
| 28 | .03 | .01 | .00 | .10 | 3.8 | 41 | 65 | 37 | 14 | .14 | .00 | .00 |
| 29 | .03 | .01 | .00 | .10 | 3.8 | 36 | 91 | 35 | 14 | .11 | .00 | .00 |
| 30 | .03 | .00 | .00 | .06 | --- | 33 | 147 | 34 | 11 | .10 | .00 | .45 |
| 31 | .04 | --- | .01 | .20 | --- | 31 | --- | 32 | --- | .27 | .00 | --- |
| TOTAL | .92 | 1.06 | .76 | .74 | 52.05 | 597.5 | 1948 | 2239 | 712 | 86.79 | 3.93 | .45 |
| MEAN | .030 | .035 | .025 | .024 | 1.79 | 19.3 | 64.9 | 72.2 | 23.7 | 2.80 | .13 | .015 |
| MAX | .06 | .06 | .11 | .20 | 3.8 | 56 | 147 | 132 | 43 | 9.8 | .39 | .45 |
| MIN | .00 | .00 | .00 | .00 | .63 | 4.0 | 30 | 32 | 11 | .10 | .00 | .00 |
| AC-FT | 1.8 | 2.1 | 1.5 | 1.5 | 103 | 1190 | 3860 | 4440 | 1410 | 172 | 7.8 | .9 |

CAL YR 1983 TOTAL 3526.81 MEAN 9.66 MAX 38 MIN .00 AC-FT 7000
WTR YR 1984 TOTAL 5643.20 MEAN 15.4 MAX 147 MIN .00 AC-FT 11190

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## 06873000 SOUTH FORK SOLOMON RIVER ABOVE WEBSTER RESERVOIR, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-70, 1972 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| MAR | | | | |
| 27... | 16:40 | 45 | 138 | 17 |

## 06873100 WEBSTER RESERVOIR NEAR STOCKTON, KS

LOCATION.--Lat 39 deg 23 min 29 sec, long 99 deg 25 min 33 sec, in SW1/4 NW1/4 NE1/4 sec.3, T.8 S., R.19 W., Rooks County, Hydrologic Unit 10260013, on southeast shore near Webster Dam on South Fork Solomon River, 8.0 mi west of Stockton, and at mile 92.4.

DRAINAGE AREA.--1,150 sq mi.

PERIOD OF RECORD.--June 1956 to current year. Prior to October 1956, monthly records only.

GAGE.--Water-stage recorder. Prior to July 31, 1968, elevations below 1,873 ft from mercury-column gage near south end of dam read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began May 3, 1956. Total capacity, 401,600 acre-ft, consisting of the following: Dead storage, 2,184 acre-ft below elevation 1,855.5 ft, sill of trash-rack; irrigation pool, 74,250 acre-ft between elevations 1,855.5 ft and 1,892.2 ft; flood control pool, 184,300 acre-ft between elevations 1,892.2 ft and 1,923.7 ft; and uncontrolled storage, 140,900 acre-ft between elevations 1,923.7 ft and 1,938.0 ft. Reservoir is used to store water for flood control and irrigation in Webster Unit of approximately 8,500 acres, Missouri River Basin project. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,899.66 ft June 10, 1961, contents, 107,600 acre-ft; minimum since first filling of irrigation pool, 1,857.33 ft Oct. 23, 24, 1971, contents, 3,210 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,868.79 ft June 24, 25, contents, 16,130 acre-ft; minimum, 1,860.82 ft Jan. 12, contents, 6,070 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

| | | | |
|---|---|---|---|
| 1,860 | 5,300 | 1,866 | 12,020 |
| 1,862 | 7,255 | 1,868 | 14,900 |
| 1,864 | 9,475 | 1,870 | 18,100 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1861.58 | 1861.48 | 1861.32 | 1860.85 | 1861.35 | 1861.68 | 1862.42 | 1866.02 | 1868.42 | 1868.66 | 1867.78 | 1867.07 |
| 2 | 1861.56 | 1861.48 | 1861.33 | 1860.85 | 1861.45 | 1861.72 | 1862.71 | 1866.20 | 1868.45 | 1868.65 | 1867.76 | 1867.05 |
| 3 | 1861.54 | 1861.50 | 1861.32 | 1860.84 | 1861.56 | 1861.76 | 1862.89 | 1866.35 | 1868.46 | 1868.63 | 1867.75 | 1867.04 |
| 4 | 1861.54 | 1861.49 | 1861.32 | 1860.83 | 1861.57 | 1861.77 | 1863.03 | 1866.49 | 1868.52 | 1868.60 | 1867.70 | 1867.01 |
| 5 | 1861.52 | 1861.49 | 1861.32 | 1860.83 | 1861.56 | 1861.77 | 1863.16 | 1866.63 | 1868.52 | 1868.60 | 1867.71 | 1866.99 |
| 6 | 1861.50 | 1861.49 | 1861.46 | 1860.83 | 1861.57 | 1861.77 | 1863.27 | 1866.80 | 1868.53 | 1868.54 | 1867.67 | 1866.95 |
| 7 | 1861.48 | 1861.49 | 1861.45 | 1860.83 | 1861.57 | 1861.76 | 1863.38 | 1866.92 | 1868.54 | 1868.53 | 1867.66 | 1866.89 |
| 8 | 1861.46 | 1861.49 | 1861.40 | 1860.83 | 1861.57 | 1861.74 | 1863.46 | 1867.06 | 1868.52 | 1868.49 | 1867.65 | 1866.90 |
| 9 | 1861.46 | 1861.51 | 1861.37 | 1860.83 | 1861.57 | 1861.73 | 1863.55 | 1867.18 | 1868.58 | 1868.45 | 1867.62 | 1866.88 |
| 10 | 1861.50 | 1861.51 | 1861.37 | 1860.83 | 1861.58 | 1861.74 | 1863.66 | 1867.29 | 1868.58 | 1868.42 | 1867.60 | 1866.84 |
| 11 | 1861.47 | 1861.49 | 1861.37 | 1860.83 | 1861.58 | 1861.75 | 1863.79 | 1867.39 | 1868.63 | 1868.40 | 1867.57 | 1866.85 |
| 12 | 1861.47 | 1861.50 | 1861.36 | 1860.84 | 1861.58 | 1861.78 | 1863.85 | 1867.50 | 1868.65 | 1868.37 | 1867.54 | 1866.83 |
| 13 | 1861.45 | 1861.50 | 1861.34 | 1860.85 | 1861.57 | 1861.78 | 1863.90 | 1867.57 | 1868.67 | 1868.34 | 1867.51 | 1866.78 |
| 14 | 1861.44 | 1861.49 | 1861.30 | 1860.86 | 1861.57 | 1861.80 | 1863.93 | 1867.64 | 1868.68 | 1868.29 | 1867.48 | 1866.75 |
| 15 | 1861.43 | 1861.49 | 1861.24 | 1860.87 | 1861.60 | 1861.78 | 1863.98 | 1867.72 | 1868.68 | 1868.27 | 1867.45 | 1866.73 |
| 16 | 1861.42 | 1861.47 | 1861.18 | 1860.89 | 1861.58 | 1861.78 | 1864.05 | 1867.78 | 1868.71 | 1868.25 | 1867.43 | 1866.71 |
| 17 | 1861.42 | 1861.47 | 1861.18 | 1860.91 | 1861.56 | 1861.79 | 1864.10 | 1867.84 | 1868.70 | 1868.24 | 1867.40 | 1866.70 |
| 18 | 1861.43 | 1861.47 | 1861.18 | 1860.92 | 1861.64 | 1861.90 | 1864.13 | 1867.90 | 1868.71 | 1868.18 | 1867.37 | 1866.70 |
| 19 | 1861.46 | 1861.53 | 1861.18 | 1860.94 | 1861.63 | 1861.93 | 1864.18 | 1867.95 | 1868.71 | 1868.18 | 1867.35 | 1866.68 |
| 20 | 1861.44 | 1861.53 | 1861.18 | 1860.95 | 1861.63 | 1861.94 | 1864.36 | 1868.04 | 1867.72 | 1868.16 | 1867.35 | 1866.67 |
| 21 | 1861.44 | 1861.50 | 1861.18 | 1860.97 | 1861.64 | 1861.95 | 1864.55 | 1868.10 | 1868.74 | 1868.12 | 1867.36 | 1866.64 |
| 22 | 1861.45 | 1861.51 | 1861.19 | 1860.98 | 1861.65 | 1861.95 | 1864.71 | 1868.16 | 1868.77 | 1868.07 | 1867.33 | 1866.63 |
| 23 | 1861.43 | 1861.52 | 1861.20 | 1861.00 | 1861.64 | 1861.95 | 1864.88 | 1868.20 | 1868.77 | 1868.04 | 1867.30 | 1866.62 |
| 24 | 1861.42 | 1861.49 | 1861.18 | 1861.00 | 1861.63 | 1861.98 | 1865.00 | 1868.21 | 1868.77 | 1868.02 | 1867.27 | 1866.65 |
| 25 | 1861.42 | 1861.50 | 1861.12 | 1860.95 | 1861.60 | 1862.02 | 1865.16 | 1868.23 | 1868.74 | 1867.98 | 1867.27 | 1866.52 |
| 26 | 1861.41 | 1861.50 | 1860.98 | 1860.96 | 1861.61 | 1862.12 | 1865.25 | 1868.28 | 1868.74 | 1867.95 | 1867.26 | 1866.49 |
| 27 | 1861.40 | 1861.50 | 1860.97 | 1860.97 | 1861.62 | 1862.17 | 1865.31 | 1868.32 | 1868.73 | 1867.90 | 1867.23 | 1866.47 |
| 28 | 1861.37 | 1861.50 | 1860.97 | 1861.01 | 1861.62 | 1862.21 | 1865.37 | 1868.32 | 1868.73 | 1867.88 | 1867.22 | 1866.46 |
| 29 | 1861.43 | 1861.50 | 1860.95 | 1861.01 | 1861.65 | 1862.26 | 1865.61 | 1868.36 | 1868.70 | 1867.85 | 1867.18 | 1866.45 |
| 30 | 1861.46 | 1861.36 | 1860.92 | 1861.01 | --- | 1862.32 | 1865.80 | 1868.39 | 1868.67 | 1867.82 | 1867.14 | 1866.44 |
| 31 | 1861.47 | --- | 1860.85 | 1861.20 | --- | 1862.37 | --- | 1868.40 | --- | 1867.80 | 1867.11 | --- |
| MEAN | 1861.46 | 1861.49 | 1861.22 | 1860.91 | 1861.58 | 1861.90 | 1864.11 | 1867.59 | 1868.61 | 1868.25 | 1867.45 | 1866.75 |
| MAX | 1861.58 | 1861.53 | 1861.46 | 1861.20 | 1861.65 | 1862.37 | 1865.80 | 1868.40 | 1868.77 | 1868.66 | 1867.78 | 1867.07 |
| MIN | 1861.37 | 1861.36 | 1860.85 | 1860.83 | 1861.35 | 1861.68 | 1862.42 | 1866.02 | 1867.72 | 1867.80 | 1867.11 | 1866.44 |
| (+) | 6,710 | 6,600 | 6,100 | 6,440 | 6,890 | 7,650 | 11,740 | 15,520 | 15,940 | 14,600 | 13,560 | 12,630 |
| (#) | -120 | -110 | -500 | +340 | +450 | +760 | +4,090 | +3,780 | +420 | -1,340 | -1,020 | -950 |

CAL YR 1983 ........................ (#) -11,030
WTR YR 1984 ........................ (#) -5,800

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 06873200 SOUTH FORK SOLOMON RIVER BELOW WEBSTER RESERVOIR, KS

LOCATION.--Lat 39 deg 24 min 34 sec, long 99 deg 24 min 53 sec, in SW1/4 SW1/4 SW1/4 sec.26, T.7 S., R.19 W., Rooks County, Hydrologic Unit 10260014, 0.4 mi downstream from Webster Dam, 1.1 mi upstream from Sand Creek, 8 mi west of Stockton, and at mile 92.0.

DRAINAGE AREA.--1,150 sq mi.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,928.50 ft National Geodetic Vertical Datum of 1929 (U.S. Bureau of Reclamation bench mark). Prior to Apr. 9, 1963, water-stage recorders in two channels 0.2 mi upstream at different datums.

REMARKS.--Records poor. Flow completely regulated since 1956 by Webster Reservoir (see sta 06873100).

AVERAGE DISCHARGE.--28 years, 38.3 cu ft per sec, 27,750 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,070 cu ft per sec July 10, 1962; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--No flow entire year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |

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CAL YR 1983  TOTAL  6925.97   MEAN 19.0     MAX    185     MIN  .00   AC-FT  13740
WTR YR 1984  TOTAL     0.00   MEAN  .000    MAX       .00  MIN  .00   AC-FT      0
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## 06873460 SOUTH FORK SOLOMON RIVER AT WOODSTON, KS

LOCATION.--39 deg 26 min 23 sec, long 99 deg 26 min 05 sec, in NE1/4 SE1/4 SE1/4 sec.16, T.7 S., R.16 W., Rooks County, Hydrologic Unit 10260014, on left bank near upstream side of county highway bridge, 0.8 mi south of Woodston, and at mile 64.1.

DRAINAGE AREA.--1,502 sq mi.

PERIOD OF RECORD.--October 1978 to current year.

REVISED RECORDS.--WDR KS-82: 1979(M) (monthly runoff), 1980 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 1,660.78 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Flow moderately regulated since 1956 by Webster Reservoir 28.3 mi upstream (see sta 06873100) and Woodston diversion dam 1.9 mi upstream. Flow also affected by ground-water withdrawals and return flow from irrigation areas.

AVERAGE DISCHARGE.--6 years, 7.99 cu ft per sec, 5,790 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,600 cu ft per sec May 20, 1979, gage height, 18.34 ft; no flow Oct. 1 to Nov. 26, 1979, Jan. 11-14 and May 16, 17, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 281 cu ft per sec June 17, gage height, 8.45 ft; minimum discharge, 0.08 cu ft per sec Sept. 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .28 | .40 | .35 | .45 | 3.5 | 3.1 | 1.9 | 124 | 10 | 8.6 | 1.0 | .18 |
| 2 | .30 | .45 | .40 | .50 | 3.0 | 2.9 | 17 | 94 | 23 | 7.7 | .99 | .18 |
| 3 | .29 | .50 | .40 | .60 | 2.5 | 3.2 | 112 | 83 | 23 | 7.0 | .94 | .18 |
| 4 | .31 | .55 | .35 | .70 | 2.3 | 4.6 | 109 | 75 | 23 | 6.2 | 1.0 | .26 |
| 5 | .29 | .60 | .30 | .90 | 2.2 | 4.5 | 67 | 67 | 23 | 5.5 | 1.1 | .30 |
| 6 | .32 | .60 | .30 | 1.0 | 2.2 | 5.0 | 52 | 67 | 21 | 5.9 | .85 | .21 |
| 7 | .35 | .60 | .30 | 1.1 | 1.9 | 4.0 | 45 | 94 | 20 | 5.5 | .75 | .16 |
| 8 | .35 | .60 | .30 | 1.1 | 1.5 | 3.4 | 40 | 102 | 18 | 4.9 | .76 | .18 |
| 9 | .35 | .50 | .30 | 1.0 | 1.4 | 3.6 | 36 | 78 | 24 | 3.7 | .62 | .17 |
| 10 | .38 | .55 | .30 | .80 | 1.3 | 4.0 | 35 | 70 | 23 | 4.1 | .56 | .15 |
| 11 | .44 | .35 | .30 | .70 | 2.5 | 4.3 | 36 | 63 | 24 | 3.8 | .61 | .16 |
| 12 | .44 | .50 | .25 | .60 | 2.4 | 5.0 | 36 | 56 | 23 | 3.5 | .64 | .17 |
| 13 | .44 | .47 | .26 | .50 | 2.3 | 1.6 | 35 | 51 | 23 | 3.3 | .54 | .15 |
| 14 | .38 | .45 | .25 | .40 | 2.3 | 1.7 | 32 | 46 | 21 | 3.1 | .46 | .15 |
| 15 | .35 | .42 | .24 | .35 | 2.2 | 1.7 | 29 | 42 | 18 | 2.8 | .44 | .16 |
| 16 | .31 | .40 | .23 | .32 | 1.9 | 1.5 | 27 | 40 | 73 | 2.5 | .40 | .18 |
| 17 | .30 | .40 | .22 | .30 | 1.9 | 2.8 | 26 | 37 | 215 | 3.4 | .37 | .18 |
| 18 | .30 | .40 | .21 | .30 | 3.1 | 3.4 | 25 | 36 | 82 | 3.0 | .35 | .18 |
| 19 | .33 | .45 | .20 | .30 | 2.9 | 2.2 | 25 | 38 | 56 | 9.0 | .37 | .15 |
| 20 | .35 | .40 | .20 | .31 | 2.9 | 5.2 | 26 | 38 | 39 | 6.6 | .40 | .13 |
| 21 | .35 | .39 | .20 | .35 | 2.5 | 7.7 | 48 | 36 | 31 | 5.0 | .44 | .10 |
| 22 | .32 | .36 | .20 | .35 | 3.2 | 8.5 | 96 | 40 | 25 | 4.0 | .36 | .13 |
| 23 | .30 | .35 | .20 | .40 | 3.2 | 7.8 | 117 | 35 | 22 | 3.5 | .28 | .12 |
| 24 | .30 | .35 | .23 | .50 | 3.0 | 7.8 | 52 | 32 | 19 | 3.0 | .25 | .11 |
| 25 | .27 | .35 | .25 | .70 | 3.1 | 8.0 | 49 | 30 | 21 | 2.5 | .27 | .12 |
| 26 | .27 | .35 | .26 | 1.5 | 2.8 | 10 | 48 | 28 | 18 | 2.1 | .31 | .14 |
| 27 | .27 | .35 | .28 | 2.5 | 2.2 | 12 | 42 | 27 | 15 | 1.7 | .32 | .16 |
| 28 | .35 | .35 | .30 | 10 | 1.9 | 12 | 37 | 26 | 13 | 1.4 | .28 | .18 |
| 29 | .60 | .35 | .32 | 12 | 1.6 | 11 | 69 | 25 | 11 | 1.3 | .24 | .20 |
| 30 | .45 | .35 | .35 | 7.0 | --- | 5.4 | 103 | 25 | 9.6 | 1.3 | .19 | .23 |
| 31 | .40 | --- | .38 | 4.5 | --- | 1.9 | --- | 24 | --- | .99 | .18 | --- |
| TOTAL | 10.74 | 13.43 | 8.66 | 52.03 | 69.7 | 160.1 | 1452.9 | 1629 | 966.6 | 126.89 | 16.27 | 5.08 |
| MEAN | .35 | .45 | .29 | 1.68 | 2.40 | 5.16 | 48.4 | 52.5 | 32.2 | 4.09 | .52 | .17 |
| MAX | .60 | .60 | .40 | 12 | 3.5 | 12 | 117 | 124 | 215 | 9.0 | 1.1 | .30 |
| MIN | .27 | .35 | .20 | .30 | 1.3 | 1.5 | 1.9 | 24 | 9.6 | .99 | .18 | .10 |
| AC-FT | 21 | 27 | 17 | 103 | 138 | 318 | 2880 | 3230 | 1920 | 252 | 32 | 10 |

CAL YR 1983 TOTAL 973.79 MEAN 2.67 MAX 65 MIN .14 AC-FT 1930
WTR YR 1984 TOTAL 4511.40 MEAN 12.3 MAX 215 MIN .10 AC-FT 8950

## 06874000 SOUTH FORK SOLOMON RIVER AT OSBORNE, KS

LOCATION.--Lat 39 deg 25 min 43 sec, long 98 deg 41 min 40 sec, in SW1/4 NW1/4 SW1/4 sec.20, T.7 S., R.12 W., Osborne County, Hydrologic Unit 10260014, at downstream side of bridge on U.S. Highway 281, 0.5 mi south of Osborne, 0.6 mi downstream from Covert Creek, and at mile 27.6.

DRAINAGE AREA.--2,012 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,505.09 ft National Geodetic Vertical Datum of 1929. Prior to Dec. 12, 1946, nonrecording gage at same site and datum.

REMARKS.--Records poor. Flow moderately regulated since 1956 by Webster Reservoir 64.8 mi upstream (see sta 06873100). Diversions above station for irrigation. Occasional low-water regulation by Osborne city reservoir 1.5 mi upstream.

AVERAGE DISCHARGE.--38 years, 109 cu ft per sec, 78,970 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,200 cu ft per sec July 13, 1951, gage height, 27.65 ft, from rating curve extended above 16,000 cu ft per sec on basis of slope-area and contracted-opening measurement of peak flow; no flow Aug. 21, 1946, Apr. 21, 1948, Aug. 5, 1968, July 12, 1977, Sept. 24, 1984, part of each day Sept. 15, 1981, July 1, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 635 cu ft per sec Apr. 21, gage height, 9.02 ft; no flow Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.0 | 5.0 | 4.2 | 4.9 | 41 | 8.2 | 21 | 266 | 53 | 17 | 1.7 | 1.6 |
| 2 | 3.9 | 5.3 | 4.5 | 5.6 | 37 | 8.4 | 146 | 241 | 54 | 14 | 1.6 | 2.0 |
| 3 | 4.1 | 5.6 | 4.4 | 6.6 | 29 | 8.8 | 150 | 204 | 50 | 13 | 1.5 | 1.8 |
| 4 | 3.7 | 6.8 | 3.9 | 8.0 | 23 | 9.3 | 132 | 175 | 52 | 11 | 1.3 | 1.2 |
| 5 | 3.2 | 7.4 | 4.2 | 9.4 | 21 | 9.8 | 126 | 151 | 49 | 10 | 1.3 | 1.6 |
| 6 | 3.2 | 7.3 | 3.4 | 10 | 19 | 10 | 85 | 139 | 47 | 9.2 | 3.0 | 2.2 |
| 7 | 3.7 | 6.8 | 3.7 | 12 | 21 | 10 | 63 | 144 | 43 | 8.4 | 2.5 | 2.2 |
| 8 | 4.2 | 6.8 | 3.6 | 12 | 17 | 11 | 56 | 156 | 40 | 7.6 | 2.2 | 2.2 |
| 9 | 4.3 | 7.5 | 3.6 | 14 | 17 | 10 | 49 | 169 | 42 | 7.0 | 2.7 | 2.4 |
| 10 | 4.9 | 6.3 | 3.9 | 11 | 16 | 9.0 | 46 | 149 | 44 | 6.2 | 1.6 | 2.4 |
| 11 | 3.3 | 5.8 | 3.7 | 9.3 | 14 | 8.8 | 45 | 134 | 45 | 10 | 1.2 | 2.2 |
| 12 | 2.2 | 5.7 | 3.4 | 8.4 | 13 | 8.6 | 53 | 119 | 45 | 8.4 | 1.1 | 1.2 |
| 13 | 2.3 | 5.4 | 3.6 | 6.4 | 12 | 10 | 44 | 107 | 42 | 6.6 | .70 | .70 |
| 14 | 2.5 | 5.6 | 3.1 | 5.0 | 13 | 9.6 | 40 | 97 | 42 | 5.8 | 1.1 | .60 |
| 15 | 3.0 | 5.1 | 2.9 | 4.3 | 12 | 10 | 38 | 89 | 38 | 5.2 | .35 | 1.3 |
| 16 | 3.4 | 4.9 | 2.8 | 3.7 | 11 | 11 | 35 | 83 | 36 | 4.3 | .19 | 2.3 |
| 17 | 3.4 | 4.7 | 2.7 | 3.6 | 9.4 | 12 | 33 | 85 | 34 | 6.0 | .19 | 1.6 |
| 18 | 3.3 | 4.4 | 2.5 | 3.5 | 10 | 11 | 31 | 77 | 139 | 5.0 | .42 | 1.4 |
| 19 | 4.4 | 5.2 | 2.4 | 3.5 | 9.0 | 10 | 30 | 138 | 108 | 5.6 | .73 | 1.2 |
| 20 | 4.1 | 4.9 | 2.3 | 3.5 | 8.2 | 14 | 33 | 137 | 77 | 4.2 | 1.0 | .96 |
| 21 | 4.4 | 4.8 | 2.2 | 3.7 | 8.5 | 15 | 439 | 102 | 63 | 3.3 | 1.1 | .73 |
| 22 | 3.8 | 4.4 | 2.2 | 4.0 | 8.9 | 16 | 376 | 92 | 52 | 2.7 | .96 | .72 |
| 23 | 3.6 | 4.2 | 2.3 | 4.5 | 9.4 | 20 | 234 | 86 | 46 | 2.2 | .77 | .47 |
| 24 | 3.6 | 4.0 | 2.5 | 5.0 | 9.2 | 24 | 203 | 79 | 40 | 1.9 | .25 | .00 |
| 25 | 3.1 | 4.2 | 2.8 | 6.9 | 9.6 | 22 | 144 | 72 | 37 | 1.7 | .23 | .06 |
| 26 | 3.3 | 4.3 | 2.9 | 8.8 | 9.5 | 25 | 95 | 69 | 34 | 1.5 | .76 | .55 |
| 27 | 2.5 | 4.0 | 3.0 | 40 | 9.4 | 22 | 89 | 66 | 32 | 1.7 | .83 | 1.6 |
| 28 | 3.7 | 4.1 | 3.3 | 99 | 8.6 | 23 | 77 | 63 | 29 | 1.9 | .13 | 1.9 |
| 29 | 7.2 | 4.0 | 3.6 | 136 | 8.0 | 23 | 115 | 61 | 27 | 2.0 | .12 | 2.1 |
| 30 | 5.4 | 3.8 | 4.0 | 87 | --- | 23 | 270 | 52 | 23 | 1.9 | .29 | 2.5 |
| 31 | 5.1 | --- | 4.4 | 53 | --- | 22 | --- | 58 | --- | 1.8 | 1.1 | --- |
| TOTAL | 116.8 | 158.3 | 102.0 | 592.6 | 434.0 | 434.5 | 3298 | 3662 | 1463 | 187.1 | 32.92 | 43.69 |
| MEAN | 3.77 | 5.28 | 3.29 | 19.1 | 15.0 | 14.0 | 110 | 118 | 48.8 | 6.04 | 1.06 | 1.46 |
| MAX | 7.2 | 7.5 | 4.5 | 136 | 41 | 25 | 439 | 266 | 139 | 17 | 3.0 | 2.5 |
| MIN | 2.2 | 3.8 | 2.2 | 3.5 | 8.0 | 8.2 | 21 | 52 | 23 | 1.5 | .12 | .00 |
| AC-FT | 232 | 314 | 202 | 1180 | 861 | 862 | 6540 | 7260 | 2900 | 371 | 65 | 87 |

CAL YR 1983 TOTAL 5272.80 MEAN 14.4 MAX 75 MIN 1.3 AC-FT 10460
WTR YR 1984 TOTAL 10524.91 MEAN 28.8 MAX 439 MIN .00 AC-FT 20880

## 06874000 SOUTH FORK SOLOMON RIVER AT OSBORNE, KS--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

### CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | BARO-METRIC PRES-SURE (MM OF HG) |
|---|---|---|---|---|---|---|---|
| OCT | | | | | | | |
| 05... | 11:30 | 3.2 | 1010 | 8.0 | 15.5 | 9.1 | 730 |
| NOV | | | | | | | |
| 15... | 12:40 | 5.1 | 1050 | 8.1 | 7.0 | 11.7 | 724 |
| JAN | | | | | | | |
| 05... | 11:40 | 9.1 | 1130 | 8.0 | 0.5 | -- | 719 |
| FEB | | | | | | | |
| 09... | 09:20 | 17 | 1050 | 8.1 | 2.0 | 12.4 | 718 |
| MAR | | | | | | | |
| 28... | 15:00 | 24 | 1160 | 8.2 | 7.0 | 12.1 | 715 |
| JUN | | | | | | | |
| 20... | 09:20 | 79 | 1030 | 8.1 | 24.0 | 6.7 | 720 |
| JUL | | | | | | | |
| 26... | 14:15 | 1.6 | 1090 | 8.4 | 27.5 | 12.2 | 721 |

| DATE | HARD-NESS (MG/L AS CACO3) | HARD-NESS NONCAR-BONATE (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY LAB (MG/L AS CACO3) | CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 05... | 390 | 356 | 120 | 21 | 75 | 2 | 13 | 220 | 4.2 | 210 | 75 |
| NOV | | | | | | | | | | | |
| 15... | 440 | 436 | 140 | 21 | 71 | 2 | 12 | 287 | 4.4 | 210 | 74 |
| JAN | | | | | | | | | | | |
| 05... | 460 | 461 | 150 | 21 | 74 | 2 | 9.9 | 294 | 5.7 | 230 | 77 |
| FEB | | | | | | | | | | | |
| 09... | 430 | 425 | 140 | 19 | 65 | 1 | 10 | 253 | 3.9 | 240 | 70 |
| JUN | | | | | | | | | | | |
| 20... | 330 | 332 | 110 | 14 | 55 | 1 | 16 | 183 | 2.5 | 170 | 95 |
| JUL | | | | | | | | | | | |
| 26... | 330 | 332 | 100 | 20 | 76 | 2 | 12 | 171 | 1.3 | 220 | 83 |

| DATE | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS N) | PHOS-PHORUS, TOTAL (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 05... | 0.3 | 19 | 670 | 0.91 | 5.8 | 0.90 | 0.09 | 1.5 | 2.4 | 0.09 |
| NOV | | | | | | | | | | |
| 15... | 0.3 | 22 | 746 | 1.0 | 10 | 1.10 | 0.03 | 1.4 | 2.5 | 0.06 |
| JAN | | | | | | | | | | |
| 05... | 0.3 | 23 | 786 | 1.1 | 19 | 2.70 | 0.05 | 0.6 | 3.3 | 0.03 |
| FEB | | | | | | | | | | |
| 09... | 0.3 | 19 | 716 | 0.97 | 33 | 1.60 | 0.13 | 0.7 | 2.3 | 0.11 |
| JUN | | | | | | | | | | |
| 20... | 0.4 | 23 | 617 | 0.84 | 132 | 0.60 | 0.18 | 0.7 | 1.3 | 0.29 |
| JUL | | | | | | | | | | |
| 26... | 0.3 | 14 | 659 | 0.9 | 2.9 | 0.23 | 0.04 | 1.5 | 2.0 | 0.20 |

## 06874200 WACONDA LAKE AT GLEN ELDER, KS

LOCATION.--Lat 39 deg 29 min 45 sec, long 98 deg 18 min 45 sec, in SW1/4 SE1/4 SW1/4 sec.27, T.6 S., R.9 W., Mitchell County, Hydrologic Unit 10260015, in outlet structure of Glen Elder Dam on Solomon River, southwest edge of Glen Elder, and at mile 172.4.

DRAINAGE AREA.--5,076 sq mi.

PERIOD OF RECORD.--January 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to June 4, 1969, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by compacted earthfill dam. Date of closure was Oct. 18, 1967. Regulated storage began Jan. 1, 1969. Total capacity, 1,128,700 acre-ft, consisting of the following: Dead storage, 1,236 acre-ft below elevation 1,407.8 ft; conservation pool, 240,200 acre-ft between elevations 1,407.8 ft and 1,455.6 ft; flood control pool, 722,300 acre-ft between elevations 1,455.6 ft and 1,488.3 ft; and surcharge pool, 165,000 acre-ft between elevations 1,488.3 ft and 1,492.9 ft. Figures given herein represent total contents.
Inflow partially regulated by Webster Reservoir (see sta 06873100) and Kirwin Reservoir (see sta 06871700). Diversions for irrigation above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,465.26 ft Oct. 20, 1973, contents, 334,300 acre-ft; minimum since conservation pool was first filled, 1,434.89 ft Oct. 4, 12, 1969, contents, 65,440 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,457.56 ft May 7, 8, contents, 266,900 acre-ft; minimum, 1,449.01 ft Sept. 30, contents, 167,600 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made in June 1973 by U.S. Bureau of Reclamation)

| | | | |
|---|---|---|---|
| 1,448 | 157,900 | 1,454 | 221,800 |
| 1,450 | 177,600 | 1,456 | 246,500 |
| 1,452 | 198,800 | 1,458 | 272,800 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1452.28 | 1452.26 | 1452.25 | 1452.30 | 1453.15 | 1453.54 | 1454.35 | 1457.15 | 1456.35 | 1452.71 | 1451.13 | 1449.87 |
| 2 | 1452.28 | 1452.26 | 1452.26 | 1452.30 | 1453.22 | 1453.52 | 1454.53 | 1457.31 | 1456.24 | 1452.64 | 1451.09 | 1449.82 |
| 3 | 1452.27 | 1452.27 | 1452.28 | 1452.34 | 1453.26 | 1453.51 | 1454.92 | 1457.44 | 1456.09 | 1452.62 | 1451.03 | 1449.79 |
| 4 | 1452.27 | 1452.27 | 1452.28 | 1452.34 | 1453.30 | 1453.60 | 1455.09 | 1457.49 | 1455.96 | 1452.56 | 1450.99 | 1449.75 |
| 5 | 1452.21 | 1452.27 | 1452.29 | 1452.34 | 1453.30 | 1453.58 | 1455.19 | 1457.50 | 1455.84 | 1452.51 | 1450.96 | 1449.69 |
| 6 | 1452.20 | 1452.27 | 1452.28 | 1452.34 | 1453.33 | 1453.61 | 1455.23 | 1457.55 | 1455.70 | 1452.40 | 1450.92 | 1449.65 |
| 7 | 1452.20 | 1452.27 | 1452.30 | 1452.34 | 1453.34 | 1453.61 | 1455.33 | 1457.54 | 1455.57 | 1452.36 | 1450.89 | 1449.60 |
| 8 | 1452.15 | 1452.32 | 1452.27 | 1452.34 | 1453.35 | 1453.57 | 1455.34 | 1457.55 | 1455.40 | 1452.28 | 1450.84 | 1449.60 |
| 9 | 1452.14 | 1452.30 | 1452.27 | 1452.34 | 1453.36 | 1453.57 | 1455.38 | 1457.52 | 1455.33 | 1452.20 | 1450.80 | 1449.56 |
| 10 | 1452.23 | 1452.28 | 1452.28 | 1452.34 | 1453.38 | 1453.57 | 1455.42 | 1457.52 | 1455.18 | 1452.14 | 1450.73 | 1449.46 |
| 11 | 1452.24 | 1452.23 | 1452.28 | 1452.35 | 1453.40 | 1453.57 | 1455.55 | 1457.45 | 1455.09 | 1452.09 | 1450.59 | 1449.43 |
| 12 | 1452.25 | 1452.26 | 1452.28 | 1452.37 | 1453.42 | 1453.62 | 1455.60 | 1457.48 | 1455.00 | 1451.99 | 1450.55 | 1449.47 |
| 13 | 1452.23 | 1452.28 | 1452.26 | 1452.37 | 1453.43 | 1453.63 | 1455.60 | 1457.42 | 1454.89 | 1451.96 | 1450.60 | 1449.42 |
| 14 | 1452.23 | 1452.28 | 1452.29 | 1452.35 | 1453.42 | 1453.65 | 1455.57 | 1457.37 | 1454.76 | 1451.92 | 1450.53 | 1449.39 |
| 15 | 1452.23 | 1452.25 | 1452.27 | 1452.41 | 1453.47 | 1453.64 | 1455.56 | 1457.30 | 1454.60 | 1451.86 | 1450.49 | 1449.37 |
| 16 | 1452.21 | 1452.22 | 1452.27 | 1452.42 | 1453.49 | 1453.71 | 1455.55 | 1457.30 | 1454.46 | 1451.84 | 1450.43 | 1449.30 |
| 17 | 1452.20 | 1452.24 | 1452.25 | 1452.42 | 1453.43 | 1453.70 | 1455.55 | 1457.29 | 1454.35 | 1451.82 | 1450.39 | 1449.30 |
| 18 | 1452.19 | 1452.24 | 1452.25 | 1452.42 | 1453.56 | 1453.83 | 1455.54 | 1457.32 | 1454.20 | 1451.79 | 1450.33 | 1449.31 |
| 19 | 1452.24 | 1452.27 | 1452.25 | 1452.43 | 1453.54 | 1453.85 | 1455.53 | 1457.39 | 1454.06 | 1451.74 | 1450.30 | 1449.28 |
| 20 | 1452.20 | 1452.26 | 1452.27 | 1452.42 | 1453.54 | 1453.96 | 1455.56 | 1457.47 | 1453.94 | 1451.69 | 1450.25 | 1449.25 |
| 21 | 1452.23 | 1452.23 | 1452.27 | 1452.43 | 1453.54 | 1453.96 | 1455.56 | 1457.44 | 1453.80 | 1451.64 | 1450.26 | 1449.24 |
| 22 | 1452.23 | 1452.24 | 1452.28 | 1452.45 | 1453.55 | 1454.05 | 1456.27 | 1457.53 | 1453.63 | 1451.59 | 1450.23 | 1449.22 |
| 23 | 1452.23 | 1452.24 | 1452.27 | 1452.45 | 1453.55 | 1454.10 | 1456.47 | 1457.43 | 1453.49 | 1451.54 | 1450.18 | 1449.21 |
| 24 | 1452.22 | 1452.22 | 1452.27 | 1452.46 | 1453.54 | 1454.15 | 1456.57 | 1457.36 | 1453.30 | 1451.45 | 1450.10 | 1449.16 |
| 25 | 1452.22 | 1452.22 | 1452.28 | 1452.47 | 1453.46 | 1454.19 | 1456.53 | 1457.24 | 1453.12 | 1451.47 | 1450.08 | 1449.11 |
| 26 | 1452.22 | 1452.15 | 1452.27 | 1452.47 | 1453.54 | 1454.24 | 1456.65 | 1457.11 | 1453.05 | 1451.39 | 1450.05 | 1449.05 |
| 27 | 1452.20 | 1452.32 | 1452.30 | 1452.49 | 1453.55 | 1454.26 | 1456.63 | 1457.05 | 1452.94 | 1451.35 | 1450.05 | 1449.05 |
| 28 | 1452.15 | 1452.31 | 1452.32 | 1452.56 | 1453.53 | 1454.31 | 1456.57 | 1456.87 | 1452.89 | 1451.30 | 1450.01 | 1449.04 |
| 29 | 1452.23 | 1452.29 | 1452.32 | 1452.75 | 1453.52 | 1454.31 | 1456.79 | 1456.73 | 1452.84 | 1451.21 | 1449.96 | 1449.01 |
| 30 | 1452.24 | 1452.28 | 1452.30 | 1452.93 | --- | 1454.32 | 1456.95 | 1456.54 | 1452.79 | 1451.17 | 1449.93 | 1449.01 |
| 31 | 1452.26 | --- | 1452.32 | 1453.07 | --- | 1454.33 | --- | 1456.45 | --- | 1451.16 | 1449.89 | --- |
| MEAN | 1452.22 | 1452.26 | 1452.28 | 1452.45 | 1453.43 | 1453.84 | 1455.73 | 1457.30 | 1454.50 | 1451.83 | 1450.45 | 1449.38 |
| MAX | 1452.28 | 1452.32 | 1452.32 | 1453.07 | 1453.56 | 1454.33 | 1456.95 | 1457.55 | 1456.35 | 1452.71 | 1451.13 | 1449.87 |
| MIN | 1452.14 | 1452.15 | 1452.25 | 1452.30 | 1453.15 | 1453.52 | 1454.35 | 1456.45 | 1452.79 | 1451.16 | 1449.89 | 1449.01 |
| (*) | 201,700 | 202,000 | 202,400 | 210,900 | 216,200 | 225,300 | 258,800 | 252,300 | 207,400 | 189,700 | 176,500 | 167,600 |
| (#) | -300 | +300 | +400 | +8,500 | +5,300 | +9,100 | +33,500 | -6,500 | -44,900 | -17,700 | -13,200 | -8,900 |

CAL YR 1983 ........................ (#) -4,500
WTR YR 1984 ........................ (#) -34,400

* CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 06875900 SOLOMON RIVER NEAR GLEN ELDER, KS

LOCATION.--Lat 39 deg 28 min 27 sec, long 98 deg 16 min 58 sec, in SE1/4 SE1/4 NE1/4 sec.2, T.7 S., R.9 W., Mitchell County, Hydrologic Unit 10260015, near right bank, 3.6 mi downstream from Glen Elder Dam, 2.0 mi southeast of Glen Elder, and at mile 165.9.

DRAINAGE AREA.--5,340 sq mi.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Concrete control since Mar. 4, 1970. Datum of gage is 1,374.13 ft National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. Flow mostly regulated since 1967 by Waconda Lake (see sta 06874200) which in turn is moderately regulated since 1955 by Kirwin Reservoir (see sta 06871700) and since 1956 by Webster Reservoir (see sta 06873100). Large diversions below Kirwin and Webster Reservoirs and many small diversions above Waconda Lake for irrigation.

AVERAGE DISCHARGE.--20 years, 147 cu ft per sec, 106,500 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,890 cu ft per sec July 30, 1967, gage height, 26.89 ft; minimum, 0.32 cu ft per sec Nov. 22, 23, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,740 cu ft per sec June 10, gage height, 15.63 ft; minimum, 16 cu ft per sec Oct. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 25 | 20 | 20 | 23 | 229 | 66 | 87 | 649 | 1070 | 327 | 170 | 61 |
| 2 | 28 | 20 | 20 | 23 | 198 | 67 | 213 | 623 | 1070 | 327 | 173 | 61 |
| 3 | 20 | 20 | 20 | 23 | 147 | 67 | 705 | 680 | 1070 | 329 | 172 | 61 |
| 4 | 18 | 18 | 20 | 25 | 109 | 70 | 467 | 621 | 1080 | 328 | 168 | 63 |
| 5 | 17 | 18 | 20 | 24 | 93 | 74 | 235 | 716 | 1070 | 329 | 167 | 63 |
| 6 | 17 | 18 | 20 | 23 | 80 | 79 | 179 | 713 | 1060 | 328 | 168 | 62 |
| 7 | 17 | 18 | 20 | 23 | 56 | 77 | 158 | 729 | 1060 | 325 | 166 | 60 |
| 8 | 16 | 18 | 20 | 23 | 68 | 73 | 148 | 707 | 1050 | 326 | 160 | 60 |
| 9 | 16 | 18 | 20 | 24 | 85 | 69 | 144 | 690 | 1060 | 325 | 162 | 60 |
| 10 | 16 | 19 | 20 | 26 | 83 | 68 | 144 | 681 | 1460 | 322 | 161 | 62 |
| 11 | 173 | 18 | 21 | 27 | 83 | 67 | 148 | 680 | 1170 | 321 | 163 | 66 |
| 12 | 835 | 22 | 20 | 26 | 84 | 68 | 182 | 675 | 1060 | 317 | 164 | 69 |
| 13 | 63 | 25 | 20 | 24 | 77 | 67 | 249 | 667 | 1040 | 250 | 162 | 64 |
| 14 | 33 | 23 | 21 | 23 | 80 | 68 | 274 | 662 | 1030 | 171 | 164 | 61 |
| 15 | 25 | 22 | 20 | 23 | 80 | 70 | 257 | 660 | 1030 | 172 | 163 | 62 |
| 16 | 22 | 20 | 19 | 22 | 76 | 73 | 249 | 496 | 1020 | 168 | 164 | 63 |
| 17 | 20 | 20 | 17 | 21 | 73 | 77 | 244 | 353 | 1020 | 171 | 138 | 65 |
| 18 | 19 | 20 | 18 | 20 | 76 | 85 | 241 | 251 | 1010 | 175 | 103 | 66 |
| 19 | 19 | 20 | 17 | 20 | 74 | 85 | 239 | 173 | 1010 | 190 | 103 | 67 |
| 20 | 19 | 19 | 15 | 18 | 75 | 78 | 238 | 233 | 1040 | 183 | 104 | 51 |
| 21 | 40 | 19 | 17 | 19 | 75 | 181 | 281 | 385 | 1080 | 180 | 104 | 31 |
| 22 | 27 | 20 | 18 | 22 | 72 | 252 | 835 | 385 | 1050 | 179 | 102 | 31 |
| 23 | 32 | 20 | 18 | 23 | 73 | 196 | 808 | 536 | 1040 | 177 | 100 | 32 |
| 24 | 31 | 21 | 18 | 22 | 73 | 155 | 552 | 915 | 1020 | 176 | 103 | 32 |
| 25 | 23 | 21 | 18 | 22 | 74 | 134 | 524 | 1120 | 1020 | 174 | 104 | 31 |
| 26 | 20 | 21 | 18 | 23 | 73 | 126 | 489 | 1090 | 807 | 175 | 103 | 30 |
| 27 | 19 | 21 | 18 | 23 | 70 | 123 | 469 | 1090 | 524 | 172 | 86 | 30 |
| 28 | 19 | 21 | 18 | 32 | 69 | 127 | 448 | 1090 | 524 | 170 | 62 | 31 |
| 29 | 18 | 20 | 18 | 100 | 68 | 116 | 528 | 1080 | 427 | 168 | 62 | 30 |
| 30 | 20 | 20 | 18 | 275 | --- | 100 | 707 | 1080 | 330 | 169 | 60 | 29 |
| 31 | 19 | --- | 22 | 391 | --- | 90 | --- | 1080 | --- | 169 | 61 | --- |
| TOTAL | 1686 | 600 | 589 | 1413 | 2572 | 3048 | 10442 | 21510 | 29302 | 7293 | 4042 | 1554 |
| MEAN | 54.4 | 20.0 | 19.0 | 45.6 | 88.7 | 98.3 | 348 | 694 | 977 | 235 | 130 | 51.8 |
| MAX | 835 | 25 | 22 | 391 | 229 | 252 | 835 | 1120 | 1460 | 329 | 173 | 69 |
| MIN | 16 | 18 | 15 | 18 | 56 | 66 | 87 | 173 | 330 | 168 | 60 | 29 |
| AC-FT | 3340 | 1190 | 1170 | 2800 | 5100 | 6050 | 20710 | 42670 | 58120 | 14470 | 8020 | 3080 |

CAL YR 1983 TOTAL 28963 MEAN 79.4 MAX 835 MIN 15 AC-FT 57460
WTR YR 1984 TOTAL 84051 MEAN 230 MAX 1460 MIN 15 AC-FT 166700

## 06876700 SALT CREEK NEAR ADA, KS

LOCATION.--Lat 39 deg 08 min 30 sec, long 97 deg 50 min 10 sec, in NW1/4 NW1/4 SW1/4 sec.36, T.10 S., R.5 W., Ottawa County, Hydrologic Unit 10260015, on left bank at downstream side of highway bridge, 3.0 mi southeast of Ada, and 19.4 mi upstream from mouth.

DRAINAGE AREA.--384 sq mi, approximately.

PERIOD OF RECORD.--June 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,247.18 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter period and no gage-height record May 9 to June 13, which are poor.

AVERAGE DISCHARGE.--25 years, 59.0 cu ft per sec, 42,750 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 cu ft per sec May 23, 1961, gage height, 23.25 ft; no flow at times in 1964, 1966, 1968, and 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1942 reached a stage of about 21 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 580 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| May 1 | 1900 | *856 | 14.93 | May 4 | 1200 | 596 | 12.52 |

Minimum discharge, 0.96 cu ft per sec Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | 7.1 | 6.5 | 5.4 | 27 | 14 | 27 | 829 | 44 | 34 | 7.9 | 2.6 |
| 2 | 1.5 | 7.1 | 6.6 | 5.8 | 27 | 15 | 67 | 787 | 46 | 26 | 8.2 | 2.8 |
| 3 | 1.4 | 5.4 | 6.4 | 6.4 | 30 | 14 | 178 | 420 | 48 | 23 | 7.5 | 2.5 |
| 4 | 1.3 | 4.5 | 6.7 | 6.9 | 40 | 16 | 398 | 557 | 48 | 22 | 7.4 | 2.5 |
| 5 | 1.3 | 3.5 | 7.1 | 7.2 | 47 | 16 | 280 | 347 | 48 | 21 | 6.9 | 2.3 |
| 6 | 1.1 | 3.7 | 7.1 | 7.6 | 33 | 17 | 142 | 237 | 47 | 20 | 6.6 | 2.1 |
| 7 | 1.3 | 3.8 | 7.6 | 8.5 | 26 | 17 | 86 | 237 | 47 | 18 | 6.5 | 1.8 |
| 8 | 1.2 | 5.2 | 7.3 | 10 | 22 | 17 | 68 | 232 | 47 | 17 | 6.4 | 1.7 |
| 9 | 1.0 | 6.3 | 7.4 | 11 | 22 | 16 | 62 | 250 | 70 | 16 | 6.2 | 1.8 |
| 10 | 1.2 | 5.4 | 7.4 | 15 | 21 | 15 | 63 | 200 | 48 | 14 | 6.0 | 1.8 |
| 11 | 1.9 | 5.7 | 7.7 | 17 | 21 | 15 | 68 | 180 | 35 | 14 | 5.8 | 1.7 |
| 12 | 3.3 | 7.5 | 7.7 | 17 | 20 | 15 | 76 | 190 | 28 | 14 | 5.2 | 1.7 |
| 13 | 16 | 6.8 | 7.9 | 16 | 19 | 15 | 88 | 200 | 29 | 18 | 4.9 | 4.4 |
| 14 | 7.8 | 5.7 | 7.8 | 15 | 18 | 16 | 88 | 120 | 23 | 17 | 5.4 | 20 |
| 15 | 4.5 | 4.7 | 7.7 | 14 | 18 | 16 | 59 | 90 | 32 | 15 | 5.6 | 5.2 |
| 16 | 2.5 | 4.5 | 7.0 | 13 | 17 | 17 | 47 | 75 | 25 | 13 | 5.3 | 3.5 |
| 17 | 2.4 | 5.3 | 6.6 | 12 | 17 | 18 | 42 | 70 | 22 | 13 | 4.9 | 3.2 |
| 18 | 2.3 | 5.2 | 6.3 | 11 | 21 | 22 | 39 | 65 | 21 | 12 | 4.3 | 3.3 |
| 19 | 3.9 | 4.8 | 5.8 | 10 | 19 | 32 | 37 | 65 | 21 | 12 | 4.2 | 2.7 |
| 20 | 3.6 | 5.0 | 5.2 | 9.5 | 19 | 36 | 36 | 65 | 21 | 12 | 4.2 | 2.7 |
| 21 | 6.0 | 5.0 | 4.8 | 9.0 | 19 | 49 | 45 | 70 | 23 | 11 | 5.6 | 2.5 |
| 22 | 5.0 | 5.0 | 4.7 | 9.0 | 18 | 91 | 70 | 70 | 51 | 14 | 6.2 | 2.7 |
| 23 | 4.3 | 5.3 | 4.6 | 9.0 | 18 | 216 | 288 | 70 | 77 | 12 | 5.5 | 2.5 |
| 24 | 4.8 | 5.3 | 4.6 | 9.0 | 17 | 173 | 276 | 60 | 72 | 10 | 4.8 | 2.7 |
| 25 | 4.3 | 5.5 | 4.5 | 9.0 | 16 | 110 | 126 | 55 | 41 | 9.8 | 4.5 | 2.4 |
| 26 | 3.5 | 5.6 | 4.6 | 9.5 | 16 | 95 | 86 | 52 | 305 | 9.4 | 4.1 | 2.4 |
| 27 | 2.6 | 6.7 | 4.6 | 10 | 16 | 74 | 70 | 48 | 119 | 9.6 | 4.3 | 2.4 |
| 28 | 2.6 | 7.3 | 4.7 | 12 | 15 | 50 | 57 | 46 | 144 | 10 | 4.2 | 2.4 |
| 29 | 4.1 | 7.4 | 4.8 | 14 | 15 | 42 | 248 | 45 | 131 | 9.4 | 3.5 | 2.8 |
| 30 | 6.0 | 7.2 | 4.9 | 18 | --- | 35 | 776 | 45 | 54 | 9.0 | 3.4 | 2.3 |
| 31 | 6.7 | --- | 5.0 | 22 | --- | 30 | --- | 45 | --- | 8.4 | 2.8 | --- |
| TOTAL | 110.9 | 167.5 | 191.6 | 348.8 | 634 | 1326 | 3993 | 5822 | 1772 | 463.6 | 168.3 | 95.4 |
| MEAN | 3.58 | 5.58 | 6.18 | 11.3 | 21.9 | 42.7 | 133 | 188 | 59.1 | 15.0 | 5.43 | 3.18 |
| MAX | 16 | 7.5 | 7.9 | 22 | 47 | 216 | 776 | 829 | 305 | 34 | 8.2 | 20 |
| MIN | 1.0 | 3.5 | 4.5 | 5.4 | 15 | 14 | 27 | 45 | 21 | 8.4 | 2.8 | 1.7 |
| AC-FT | 220 | 332 | 380 | 692 | 1260 | 2630 | 7920 | 11550 | 3510 | 920 | 334 | 189 |

CAL YR 1983 TOTAL 14793.8 MEAN 40.5 MAX 677 MIN 1.0 AC-FT 29340
WTR YR 1984 TOTAL 15091.1 MEAN 41.2 MAX 829 MIN 1.0 AC-FT 29930

BEST COPY AVAILABLE

## 06876900 SOLOMON RIVER AT NILES, KS

LOCATION.--Lat 38 deg 58 min 08 sec, long 97 deg 28 min 34 sec, in NW1/4 SE1/4 NW1/4 sec.31, T.12 S., R.1 W., Ottawa County, Hydrologic Unit 10260015, at downstream side of county highway bridge, 0.8 mi west of Niles, and at mile 21.6.

DRAINAGE AREA.--6,770 sq mi, approximately.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1897 to November 1903, October 1917 to current year. Published as "near Bennington" October 1917 to May 1919. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 806: Drainage area. WSP 926: 1935. WSP 1310: 1897-1903. WSP 1440: 1903, 1919, 1927.

GAGE.--Water-stage recorders. Datum of gage is 1,160.97 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 30, 1903, nonrecording gage at present site and at different datum. Oct. 1, 1917, to May 31, 1919, nonrecording gage near Bennington, 27 mi upstream at different datum. June 1, 1919, to Sept. 30, 1922, nonrecording gage at present site at datum 2.00 ft higher. Oct. 1, 1922, to Apr. 25, 1934, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor. Flow moderately regulated since 1967 by Waconda Lake 150.8 mi upstream (see sta 06874200). Slight regulation since 1955 by Kirwin Reservoir (see sta 06871700) and since 1956 by Webster Reservoir (see sta 06873100). Many small diversions above station for irrigation.

AVERAGE DISCHARGE.--73 years, 550 cu ft per sec, 398,500 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 178,000 cu ft per sec July 14, 1951, gage height, 31.76 ft; minimum observed, 1.0 cu ft per sec Sept. 4, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,410 cu ft per sec Apr. 4, gage height, 20.75 ft; minimum, 56 cu ft per sec Oct. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 63 | 87 | 97 | 70 | 549 | 170 | 330 | 4140 | 1180 | 722 | 161 | 95 |
| 2 | 70 | 90 | 79 | 70 | 996 | 169 | 400 | 3430 | 1160 | 625 | 167 | 82 |
| 3 | 177 | 92 | 78 | 72 | 1150 | 167 | 2190 | 2550 | 1150 | 505 | 160 | 81 |
| 4 | 141 | 87 | 82 | 74 | 918 | 174 | 4160 | 1990 | 1230 | 459 | 161 | 90 |
| 5 | 92 | 84 | 86 | 76 | 694 | 182 | 2880 | 2280 | 1240 | 440 | 160 | 97 |
| 6 | 69 | 82 | 90 | 80 | 505 | 175 | 1840 | 1860 | 1210 | 428 | 161 | 107 |
| 7 | 65 | 79 | 92 | 90 | 407 | 178 | 1210 | 1400 | 1200 | 411 | 164 | 108 |
| 8 | 65 | 80 | 95 | 100 | 344 | 182 | 511 | 1420 | 1150 | 405 | 188 | 103 |
| 9 | 59 | 86 | 102 | 130 | 289 | 185 | 680 | 1480 | 1150 | 395 | 183 | 105 |
| 10 | 58 | 108 | 99 | 150 | 277 | 180 | 720 | 1340 | 1190 | 355 | 167 | 108 |
| 11 | 64 | 115 | 100 | 150 | 255 | 180 | 980 | 1180 | 1380 | 377 | 154 | 108 |
| 12 | 65 | 94 | 97 | 130 | 226 | 175 | 920 | 1110 | 1370 | 372 | 149 | 106 |
| 13 | 64 | 85 | 90 | 130 | 228 | 170 | 950 | 1040 | 1440 | 365 | 171 | 104 |
| 14 | 64 | 84 | 95 | 130 | 225 | 174 | 1050 | 987 | 1330 | 355 | 171 | 130 |
| 15 | 279 | 95 | 95 | 120 | 217 | 173 | 1000 | 952 | 1320 | 350 | 176 | 126 |
| 16 | 404 | 85 | 92 | 110 | 212 | 176 | 740 | 919 | 1280 | 337 | 175 | 120 |
| 17 | 195 | 81 | 70 | 105 | 223 | 195 | 520 | 894 | 1270 | 290 | 172 | 118 |
| 18 | 117 | 79 | 65 | 100 | 233 | 215 | 474 | 874 | 1190 | 236 | 174 | 114 |
| 19 | 100 | 85 | 60 | 95 | 250 | 275 | 463 | 790 | 1160 | 225 | 172 | 111 |
| 20 | 110 | 85 | 60 | 90 | 238 | 292 | 449 | 665 | 1140 | 219 | 164 | 108 |
| 21 | 103 | 85 | 60 | 85 | 213 | 505 | 717 | 659 | 1120 | 209 | 198 | 104 |
| 22 | 111 | 81 | 60 | 85 | 205 | 968 | 831 | 621 | 1260 | 232 | 191 | 100 |
| 23 | 103 | 81 | 60 | 82 | 201 | 777 | 1030 | 533 | 1620 | 225 | 162 | 99 |
| 24 | 91 | 82 | 60 | 82 | 196 | 1460 | 1610 | 580 | 1730 | 211 | 135 | 95 |
| 25 | 81 | 80 | 65 | 82 | 188 | 1920 | 1360 | 646 | 1630 | 203 | 135 | 92 |
| 26 | 92 | 79 | 74 | 85 | 194 | 1130 | 1370 | 671 | 1290 | 200 | 129 | 76 |
| 27 | 86 | 86 | 80 | 95 | 192 | 828 | 999 | 966 | 1570 | 192 | 122 | 73 |
| 28 | 79 | 99 | 80 | 120 | 181 | 603 | 865 | 1160 | 1470 | 176 | 119 | 78 |
| 29 | 82 | 99 | 75 | 190 | 174 | 490 | 1420 | 1250 | 1070 | 159 | 120 | 80 |
| 30 | 92 | 96 | 71 | 270 | --- | 404 | 4020 | 1290 | 558 | 151 | 117 | 80 |
| 31 | 103 | --- | 70 | 400 | --- | 350 | --- | 1220 | --- | 155 | 112 | --- |
| TOTAL | 3349 | 2619 | 2454 | 3648 | 10160 | 13178 | 37359 | 40927 | 38208 | 10003 | 4889 | 3001 |
| MEAN | 108 | 87.3 | 79.2 | 118 | 350 | 425 | 1245 | 1320 | 1274 | 323 | 158 | 100 |
| MAX | 404 | 115 | 102 | 400 | 1150 | 1920 | 4160 | 4140 | 1730 | 722 | 198 | 130 |
| MIN | 58 | 79 | 60 | 70 | 174 | 167 | 330 | 533 | 558 | 151 | 112 | 73 |
| AC-FT | 6640 | 5190 | 4870 | 7240 | 20150 | 26140 | 74120 | 81180 | 75790 | 19840 | 9700 | 5950 |

CAL YR 1983 TOTAL 100389 MEAN 275 MAX 2340 MIN 31 AC-FT 199100
WTR YR 1984 TOTAL 169904 MEAN 464 MAX 4160 MIN 58 AC-FT 336800

## 06876900 SOLOMON RIVER AT NILES, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1961 to September 1982.
CHLORIDE: October 1976 to September 1982.
WATER TEMPERATURES: October 1961 to September 1982.

REMARKS.--Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| NOV | | | | | |
| 16... | 15:15 | 80 | 2350 | 8.0 | 9.0 |
| JAN | | | | | |
| 03... | 17:15 | 72 | 2500 | 7.6 | 0.0 |
| FEB | | | | | |
| 07... | 12:40 | 437 | 540 | 7.6 | 2.5 |
| MAR | | | | | |
| 30... | 11:25 | 378 | 1240 | 7.9 | 7.5 |
| MAY | | | | | |
| 03... | 13:45 | 2660 | 580 | 8.0 | 13.5 |

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) |
|---|---|---|---|---|
| NOV | | | | |
| 16... | 15:15 | 80 | 38 | 8.2 |
| JAN | | | | |
| 03... | 17:15 | 72 | 8 | 1.6 |
| FEB | | | | |
| 07... | 12:40 | 437 | 401 | 473 |
| MAR | | | | |
| 30... | 11:25 | 379 | 215 | 219 |
| MAY | | | | |
| 03... | 13:45 | 2660 | 1420 | 10200 |
| JUN | | | | |
| 14... | 12:30 | 1310 | 1780 | 6300 |
| AUG | | | | |
| 01... | 11:45 | 161 | 283 | 123 |
| SEP | | | | |
| 12... | 12:00 | 106 | 161 | 46 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|
| MAY | | | | |
| 03... | 45 | 55 | 71 | 98 |
| JUN | | | | |
| 14... | 44 | 54 | 72 | 97 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | SEDIMENT, SUSPENDED (MG/L) | BED MAT. FALL DIAM. % FINER THAN .062 MM | BED MAT. FALL DIAM. % FINER THAN .125 MM | BED MAT. FALL DIAM. % FINER THAN .250 MM | BED MAT. FALL DIAM. % FINER THAN .500 MM | BED MAT. FALL DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | | |
| 16... | 15:15 | 38 | 11 | 16 | 22 | 32 | 53 | 72 | 85 | 92 | 98 | 100 |

## 06877600 SMOKY HILL RIVER AT ENTERPRISE, KS
(National stream-quality accounting network station)

LOCATION.--Lat 38 deg 54 min 24 sec, long 97 deg 07 min 12 sec, in NW1/4 NW1/4 SE1/4 sec.20, T.13 S., R.3 E., Dickinson County, Hydrologic Unit 10260008, at upstream side of bridge on State Highway 43 in Enterprise, 18.6 mi upstream from Chapman Creek and at mile 43.3.

DRAINAGE AREA.--19,260 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year.

REVISED RECORDS.--WSP 1390: 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 1,103.25 ft National Geodetic Vertical Datum of 1929. Nov. , 1934, to Jan. 28, 1935, nonrecording gage and Jan. 29, 1935, to May 3, 1959, water-stage recorder at site 0.2 mi downstream at datum 5.40 ft lower.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by six lakes and reservoirs, and by numerous diversions for irrigation above station.

AVERAGE DISCHARGE.--50 years, 1,547 cu ft per sec, 1,121,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 233,000 cu ft per sec July 14, 1951, gage height, 33.96 ft, site and datum then in use, or 29.0 ft, present site and datum, from rating curve extended above 55,000 cu ft per sec on basis of slope-area measurement of peak flow; minimum, about 10 cu ft per sec Apr. 23, 1935, regulated by power plant then in operation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1903 reached stage of about 27 ft, present site and datum, from information by Corps of Engineers, discharge, 90,000 cu ft per sec.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,000 cu ft per sec May 2, gage height, 17.29 ft; minimum 106 cu ft per sec Dec. 15, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 186 | 249 | 279 | 200 | 817 | 348 | 1000 | 12000 | 1680 | 2890 | 506 | 350 |
| 2 | 193 | 237 | 273 | 205 | 809 | 347 | 1200 | 11800 | 1610 | 2580 | 420 | 350 |
| 3 | 193 | 233 | 224 | 205 | 1070 | 340 | 4600 | 7760 | 1580 | 1560 | 396 | 350 |
| 4 | 225 | 232 | 190 | 210 | 1310 | 358 | 9250 | 5860 | 1580 | 1130 | 386 | 340 |
| 5 | 268 | 225 | 260 | 210 | 1130 | 380 | 10100 | 4540 | 1670 | 1020 | 382 | 330 |
| 6 | 232 | 233 | 223 | 220 | 736 | 404 | 7020 | 4220 | 1660 | 968 | 369 | 320 |
| 7 | 215 | 236 | 223 | 245 | 749 | 389 | 3950 | 3360 | 3350 | 926 | 399 | 320 |
| 8 | 190 | 240 | 239 | 370 | 715 | 365 | 2690 | 2820 | 3260 | 884 | 395 | 320 |
| 9 | 193 | 245 | 275 | 481 | 587 | 361 | 2580 | 2700 | 2900 | 946 | 417 | 320 |
| 10 | 192 | 260 | 271 | 481 | 525 | 364 | 2520 | 2600 | 2730 | 796 | 409 | 310 |
| 11 | 229 | 338 | 296 | 488 | 503 | 352 | 1940 | 2340 | 2050 | 803 | 356 | 310 |
| 12 | 231 | 303 | 243 | 396 | 468 | 359 | 2530 | 2150 | 2090 | 753 | 368 | 300 |
| 13 | 244 | 280 | 278 | 431 | 437 | 364 | 2900 | 2000 | 2100 | 686 | 344 | 310 |
| 14 | 232 | 253 | 208 | 416 | 427 | 362 | 2150 | 1850 | 2110 | 656 | 345 | 320 |
| 15 | 221 | 242 | 150 | 356 | 420 | 374 | 1590 | 1720 | 2310 | 565 | 343 | 320 |
| 16 | 283 | 235 | 199 | 348 | 433 | 404 | 1430 | 1730 | 2810 | 653 | 328 | 300 |
| 17 | 485 | 233 | 200 | 324 | 413 | 571 | 1300 | 1640 | 2060 | 640 | 325 | 280 |
| 18 | 387 | 230 | 185 | 299 | 425 | 1040 | 1240 | 1560 | 1840 | 568 | 319 | 260 |
| 19 | 350 | 230 | 225 | 278 | 425 | 3500 | 1180 | 1510 | 1710 | 541 | 314 | 252 |
| 20 | 302 | 230 | 215 | 271 | 425 | 4140 | 1100 | 1430 | 1640 | 497 | 306 | 275 |
| 21 | 379 | 233 | 205 | 262 | 422 | 5240 | 1620 | 1320 | 1970 | 462 | 821 | 267 |
| 22 | 404 | 233 | 210 | 258 | 397 | 5590 | 2770 | 1320 | 1750 | 443 | 1040 | 238 |
| 23 | 346 | 230 | 200 | 252 | 384 | 4860 | 3050 | 1250 | 2160 | 464 | 504 | 223 |
| 24 | 326 | 226 | 190 | 251 | 378 | 3850 | 2760 | 1170 | 4000 | 423 | 493 | 213 |
| 25 | 300 | 226 | 190 | 254 | 374 | 6480 | 3160 | 1190 | 3910 | 457 | 393 | 204 |
| 26 | 264 | 230 | 190 | 265 | 367 | 5770 | 3460 | 1220 | 2910 | 422 | 353 | 196 |
| 27 | 248 | 299 | 200 | 325 | 363 | 3380 | 3630 | 1290 | 2390 | 384 | 364 | 199 |
| 28 | 237 | 467 | 200 | 428 | 352 | 2210 | 3350 | 1610 | 2850 | 396 | 363 | 201 |
| 29 | 229 | 385 | 200 | 521 | 351 | 1720 | 3570 | 1760 | 2300 | 432 | 350 | 204 |
| 30 | 229 | 334 | 200 | 582 | --- | 1350 | 8980 | 1800 | 2470 | 783 | 350 | 206 |
| 31 | 232 | --- | 200 | 746 | --- | 1120 | --- | 1780 | --- | 849 | 350 | --- |
| TOTAL | 8245 | 7832 | 6841 | 10578 | 16212 | 56695 | 98620 | 91300 | 69450 | 25577 | 12929 | 8385 |
| MEAN | 266 | 261 | 221 | 341 | 559 | 1829 | 3287 | 2945 | 2315 | 825 | 417 | 280 |
| MAX | 485 | 467 | 296 | 746 | 1310 | 6480 | 10100 | 12000 | 4000 | 2890 | 1040 | 350 |
| MIN | 186 | 225 | 150 | 200 | 351 | 340 | 1000 | 1170 | 1580 | 384 | 306 | 196 |
| AC-FT | 16350 | 15530 | 13570 | 20980 | 32160 | 112500 | 195600 | 181100 | 137800 | 50730 | 25640 | 16640 |

CAL YR 1983 TOTAL 262676 MEAN 720 MAX 6120 MIN 150 AC-FT 521000
WTR YR 1984 TOTAL 412667 MEAN 1128 MAX 12000 MIN 150 AC-FT 818500

BEST COPY AVAILABLE

## 06877600 SMOKY HILL RIVER AT ENTERPRISE, KS--Continued
(National stream-quality accounting network station)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1955 to September 1958, October 1961 to Sepetmber 1982.
CHLORIDE: October 1976 to September 1982.
WATER TEMPERATURES: October 1955 to September 1982.
SUSPENDED-SEDIMENT DISCHARGE: October 1957 to September 1975.

### CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | BARO-METRIC PRES-SURE (MM OF HG) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 14... | 15:00 | 249 | 2350 | 8.3 | 7.0 | 11.6 | 726 | 360 | 250 |
| DEC | | | | | | | | | |
| 19... | 16:00 | 227 | 3080 | 8.3 | 0.0 | -- | -- | 5000 | 2400 |
| FEB | | | | | | | | | |
| 06... | 15:00 | 740 | 905 | 8.2 | 0.0 | 15.3 | 730 | 1200 | 7400 |
| APR | | | | | | | | | |
| 04... | 15:00 | 10000 | 420 | 7.8 | 7.0 | 11.4 | 730 | E30 | >20000 |
| 05... | 09:20 | 10600 | 422 | 7.8 | 8.0 | -- | -- | -- | -- |
| MAY | | | | | | | | | |
| 15... | 14:50 | 1760 | 542 | 8.1 | 17.0 | -- | -- | -- | -- |
| JUN | | | | | | | | | |
| 28... | 09:40 | 2970 | 965 | 8.1 | 26.5 | 7.2 | 730 | 1400 | 2200 |
| AUG | | | | | | | | | |
| 15... | 10:30 | 323 | 3460 | 8.1 | 26.0 | 7.6 | 732 | 930 | 1200 |
| SEP | | | | | | | | | |
| 19... | 11:55 | 255 | 2180 | 8.3 | 19.0 | -- | -- | -- | -- |

| DATE | TUR-BID-ITY (NTU) | HARD-NESS (MG/L AS CACO3) | HARD-NESS NONCAR-BONATE (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY LAB (MG/L AS CACO3) | CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) | SULFATE DIS-SOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 14... | 3.7 | 480 | 483 | 140 | 32 | 300 | 6 | 8.5 | 252 | 2.4 | 320 |
| DEC | | | | | | | | | | | |
| 19... | 3.6 | 680 | 685 | 200 | 45 | 360 | 6 | 7.6 | 324 | 3.1 | 430 |
| FEB | | | | | | | | | | | |
| 06... | 270 | 250 | 252 | 76 | 15 | 83 | 2 | 7.8 | 136 | 1.6 | 150 |
| APR | | | | | | | | | | | |
| 04... | 960 | 130 | 127 | 36 | 8.8 | 24 | 1 | 5.8 | 77 | 2.4 | 78 |
| JUN | | | | | | | | | | | |
| 28... | 350 | 290 | 294 | 88 | 18 | 77 | 2 | 10 | 149 | 4.1 | 190 |
| AUG | | | | | | | | | | | |
| 15... | 33 | 450 | 450 | 130 | 30 | 390 | 8 | 23 | 193 | 3.0 | 320 |

E Estimated value.

## 06877600 SMOKY HILL RIVER AT ENTERPRISE, KS--Continued
(National stream-quality accounting network station)

### CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | PHOSPHORUS, TOTAL (MG/L AS P) | PHOSPHORUS, DISSOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 14... | 430 | 0.4 | 15 | 1390 | 1.9 | 934 | 0.85 | 1.3 | 0.28 | 0.21 |
| DEC | | | | | | | | | | |
| 19... | 520 | 0.4 | 16 | 1790 | 2.4 | 1100 | 1.10 | 0.8 | 0.22 | 0.16 |
| FEB | | | | | | | | | | |
| 06... | 110 | 0.3 | 11 | 544 | 0.74 | 1090 | 1.70 | 2.4 | 0.57 | 0.12 |
| APR | | | | | | | | | | |
| 04... | 24 | 0.2 | 9.4 | 254 | 0.35 | 6860 | 0.82 | 1.0 | 2.20 | 0.09 |
| JUN | | | | | | | | | | |
| 28... | 88 | 0.4 | 8.6 | 567 | 0.77 | 4550 | 0.92 | 2.0 | 0.82 | 0.10 |
| AUG | | | | | | | | | | |
| 15... | 570 | 0.4 | 9.1 | 1610 | 2.2 | 1400 | <0.10 | 1.4 | 0.18 | 0.03 |

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1934

| DATE | ALUMINUM, DISSOLVED (UG/L AS AL) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, DISSOLVED (UG/L AS BA) | BERYLLIUM, DISSOLVED (UG/L AS BE) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM, DISSOLVED (UG/L AS CR) | COBALT, DISSOLVED (UG/L AS CO) | COPPER, DISSOLVED (UG/L AS CU) | IRON, DISSOLVED (UG/L AS FE) | LEAD, DISSOLVED (UG/L AS PB) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 14... | <10 | 2 | 100 | <10 | 1 | <1 | 2 | 4 | 110 | 3 |
| FEB | | | | | | | | | | |
| 06... | 50 | 2 | 79 | <0.5 | <1 | <1 | <3 | 6 | <3 | 1 |
| APR | | | | | | | | | | |
| 04... | 160 | 1 | 78 | <0.5 | 3 | <1 | <3 | 3 | 160 | 1 |
| AUG | | | | | | | | | | |
| 15... | 20 | 3 | 180 | <1 | 2 | 2 | <3 | 1 | <3 | <1 |

| DATE | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY DISSOLVED (UG/L AS HG) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | STRONTIUM, DISSOLVED (UG/L AS SR) | VANADIUM, DISSOLVED (UG/L AS V) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 14... | 60 | 80 | <0.1 | 7 | 3 | 2 | <1 | 1600 | 7 | 20 |
| FEB | | | | | | | | | | |
| 06... | 37 | 22 | <0.1 | <10 | 5 | 2 | <1 | 750 | <6 | 7 |
| APR | | | | | | | | | | |
| 04... | 11 | 45 | <0.1 | <10 | 2 | <1 | <1 | 330 | <6 | 20 |
| AUG | | | | | | | | | | |
| 15... | 88 | 37 | 50 | 10 | 2 | 3 | <1 | 1600 | 7 | 22 |

### 06877600 SMOKY HILL RIVER AT ENTERPRISE, KS--Continued
(National stream-quality accounting network station)

#### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|
| NOV | | | | | |
| 14... | 15:00 | 249 | 13 | 8.7 | 90 |
| DEC | | | | | |
| 19... | 16:00 | 227 | 36 | 22 | 30 |
| FEB | | | | | |
| 06... | 15:00 | 740 | 435 | 869 | 99 |
| APR | | | | | |
| 04... | 15:00 | 10000 | 3960 | 106920 | 96 |
| JUN | | | | | |
| 28... | 09:40 | 2970 | 1260 | 10100 | 99 |

#### PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM |
|---|---|---|---|---|---|
| FEB | | | | | |
| 06... | 62 | 74 | 90 | -- | -- |
| APR | | | | | |
| 04... | 27 | 35 | 52 | 97 | 100 |
| JUN | | | | | |
| 28... | 32 | 39 | 60 | 100 | -- |

#### PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | SEDI-MENT, SUS-PENDED (MG/L) | BED MAT. FALL DIAM. % FINER THAN .125 MM | BED MAT. FALL DIAM. % FINER THAN .250 MM | BED MAT. FALL DIAM. % FINER THAN .500 MM | BED MAT. FALL DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 14... | 15:00 | 13 | 0 | 5 | 30 | 40 | 51 | 71 | 83 | 93 | 100 |

## 06878000 CHAPMAN CREEK NEAR CHAPMAN, KS

LOCATION.--Lat 39 deg 01 min 52 sec, long 97 deg 02 min 24 sec, in SW1/4 SE1/4 SE1/4 sec.1, T.12 S., R.3 E., Dickinson County, Hydrologic Unit 10260008, on right bank at downstream side of bridge on State Highway 18, 5.0 mi northwest of Chapman, and at mile 10.0.

DRAINAGE AREA.--300 sq mi.

PERIOD OF RECORD.--December 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,102.41 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to May 5, 1959, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--30 years (water years 1955-84), 86.5 cu ft per sec, 62,670 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 cu ft per sec Oct. 12, 1973, gage height, 24.08 ft; minimum observed, 0.10 cu ft per sec Oct. 10, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1951 reached a stage of 25.5 ft, from floodmarks, discharge, 46,700 cu ft per sec, from rating curve extended above 12,000 cu ft per sec on basis of contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 cu ft per sec and maximum(*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 22 | 1700 | 1,450 | 16.21 | Apr. 4 | 1500 | *3,820 | 20.98 |
| Mar. 25 | 1300 | 2,120 | 18.53 | May 1 | 0500 | 2,900 | 19.97 |

Minimum discharge, 8.5 cu ft per sec Oct. 4-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.0 | 37 | 30 | 31 | 64 | 40 | 360 | 1680 | 84 | 55 | 24 | 18 |
| 2 | 10 | 22 | 29 | 36 | 59 | 40 | 668 | 313 | 79 | 52 | 22 | 18 |
| 3 | 9.3 | 17 | 26 | 38 | 56 | 44 | 2530 | 378 | 75 | 51 | 22 | 19 |
| 4 | 8.5 | 16 | 26 | 40 | 54 | 40 | 3610 | 393 | 74 | 50 | 21 | 23 |
| 5 | 8.5 | 15 | 25 | 40 | 53 | 39 | 1290 | 219 | 75 | 48 | 19 | 22 |
| 6 | 8.5 | 15 | 24 | 41 | 51 | 39 | 327 | 187 | 75 | 47 | 19 | 22 |
| 7 | 8.5 | 16 | 25 | 40 | 50 | 38 | 241 | 222 | 79 | 54 | 19 | 19 |
| 8 | 8.7 | 16 | 27 | 39 | 46 | 38 | 228 | 239 | 71 | 47 | 26 | 19 |
| 9 | 9.2 | 18 | 24 | 37 | 45 | 38 | 243 | 175 | 135 | 42 | 38 | 19 |
| 10 | 9.5 | 33 | 23 | 35 | 47 | 38 | 216 | 155 | 195 | 39 | 25 | 18 |
| 11 | 15 | 47 | 24 | 31 | 48 | 42 | 197 | 145 | 141 | 37 | 22 | 19 |
| 12 | 19 | 24 | 23 | 29 | 48 | 39 | 307 | 135 | 90 | 37 | 21 | 19 |
| 13 | 15 | 22 | 25 | 27 | 45 | 38 | 234 | 125 | 149 | 37 | 21 | 19 |
| 14 | 13 | 19 | 24 | 25 | 42 | 37 | 166 | 118 | 154 | 36 | 21 | 105 |
| 15 | 11 | 19 | 22 | 24 | 39 | 37 | 147 | 112 | 196 | 33 | 20 | 208 |
| 16 | 11 | 19 | 21 | 24 | 41 | 37 | 139 | 109 | 290 | 32 | 20 | 78 |
| 17 | 10 | 18 | 20 | 23 | 43 | 50 | 132 | 107 | 113 | 32 | 19 | 43 |
| 18 | 10 | 18 | 19 | 23 | 44 | 73 | 126 | 103 | 81 | 33 | 18 | 33 |
| 19 | 14 | 18 | 19 | 23 | 46 | 218 | 122 | 101 | 69 | 33 | 18 | 29 |
| 20 | 17 | 18 | 19 | 23 | 46 | 193 | 123 | 150 | 65 | 29 | 19 | 26 |
| 21 | 400 | 18 | 19 | 23 | 45 | 593 | 350 | 202 | 78 | 27 | 60 | 24 |
| 22 | 258 | 18 | 19 | 23 | 44 | 1390 | 602 | 128 | 274 | 25 | 51 | 22 |
| 23 | 52 | 18 | 19 | 24 | 43 | 823 | 500 | 116 | 216 | 25 | 43 | 21 |
| 24 | 27 | 18 | 19 | 24 | 43 | 1180 | 242 | 119 | 140 | 24 | 28 | 20 |
| 25 | 18 | 18 | 21 | 25 | 42 | 1740 | 182 | 102 | 79 | 23 | 23 | 21 |
| 26 | 15 | 19 | 23 | 26 | 42 | 404 | 183 | 92 | 67 | 22 | 23 | 21 |
| 27 | 14 | 72 | 25 | 29 | 41 | 235 | 271 | 101 | 72 | 23 | 22 | 23 |
| 28 | 13 | 149 | 22 | 33 | 41 | 285 | 156 | 108 | 67 | 23 | 22 | 25 |
| 29 | 13 | 64 | 21 | 40 | 40 | 852 | 564 | 133 | 147 | 24 | 21 | 25 |
| 30 | 57 | 42 | 24 | 49 | --- | 524 | 1990 | 100 | 72 | 24 | 20 | 25 |
| 31 | 129 | --- | 26 | 74 | --- | 310 | --- | 89 | --- | 25 | 20 | --- |
| TOTAL | 1220.7 | 863 | 713 | 999 | 1348 | 9494 | 16446 | 6456 | 3602 | 1089 | 767 | 1003 |
| MEAN | 39.4 | 28.8 | 23.0 | 32.2 | 46.5 | 306 | 548 | 208 | 120 | 35.1 | 24.7 | 33.4 |
| MAX | 400 | 149 | 30 | 74 | 64 | 1740 | 3610 | 1680 | 316 | 55 | 60 | 208 |
| MIN | 8.5 | 15 | 19 | 23 | 39 | 37 | 122 | 89 | 65 | 22 | 18 | 18 |
| AC-FT | 2420 | 1710 | 1410 | 1980 | 2670 | 18830 | 32620 | 12810 | 7140 | 2160 | 1520 | 1990 |

CAL YR 1983 TOTAL 23800.4 MEAN 65.2 MAX 1490 MIN 5.0 AC-FT 47210
WTR YR 1984 TOTAL 44000.7 MEAN 120 MAX 3610 MIN 8.5 AC-FT 87290

## 06879100 KANSAS RIVER AT FORT RILEY, KS

LOCATION.--Lat 39 deg 03 min 09 sec, long 96 deg 46 min 33 sec, in NE1/4 SW1/4 NW1/4 sec.33, T.11 S., R.6 E., Geary County, Hydrologic Unit 10270101, at downstream side of military highway bridge 1.0 mi below the confluence of Republican and Smoky Hill Rivers, and at mile 165.9.

DRAINAGE AREA.--44,870 sq mi, of which a large area is noncontributing.

PERIOD OF RECORD.--December 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,034.69 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by reservoirs in Colorado, Nebraska, and Kansas, and by numerous diversions for irrigation above station.

AVERAGE DISCHARGE.--20 years, 2,607 cu ft per sec, 1,889,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,400 cu ft per sec Oct. 14, 1973, gage height, 23.74 ft; minimum, 100 cu ft per sec Dec. 24, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1951 reached a stage of 34.5 ft, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,600 cu ft per sec May 1, gage height, 14.93 ft; minimum discharge, 406 cu ft per sec Sept. 13, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1600 | 884 | 2650 | 640 | 1700 | 909 | 4810 | 16900 | 6020 | 4770 | 1350 | 686 |
| 2 | 1610 | 808 | 4000 | 680 | 1600 | 991 | 4780 | 18600 | 5360 | 4960 | 1160 | 651 |
| 3 | 1610 | 843 | 3910 | 730 | 1760 | 1160 | 8290 | 15600 | 5290 | 4630 | 1050 | 657 |
| 4 | 1610 | 969 | 3570 | 780 | 2020 | 1190 | 13500 | 12300 | 4600 | 3840 | 996 | 605 |
| 5 | 1620 | 970 | 3870 | 880 | 2200 | 1170 | 17700 | 10300 | 3820 | 3200 | 962 | 472 |
| 6 | 1680 | 1150 | 3870 | 1000 | 1990 | 1190 | 13600 | 9250 | 3860 | 2250 | 945 | 453 |
| 7 | 1670 | 1530 | 3390 | 1190 | 2180 | 1210 | 9200 | 8750 | 7240 | 2180 | 909 | 461 |
| 8 | 1650 | 1550 | 2130 | 1220 | 2160 | 1200 | 7160 | 7950 | 6660 | 2110 | 951 | 437 |
| 9 | 1610 | 1580 | 1040 | 1490 | 2150 | 1160 | 6910 | 5750 | 6780 | 2020 | 920 | 429 |
| 10 | 1630 | 1410 | 987 | 1750 | 2110 | 1140 | 6420 | 6540 | 7000 | 2390 | 949 | 427 |
| 11 | 1530 | 1150 | 951 | 1630 | 2460 | 1130 | 5930 | 7250 | 5070 | 3610 | 943 | 427 |
| 12 | 1680 | 1200 | 916 | 1480 | 2450 | 1130 | 5960 | 6960 | 4500 | 4950 | 910 | 422 |
| 13 | 1270 | 1120 | 893 | 1300 | 2390 | 1130 | 6520 | 6800 | 4720 | 4810 | 881 | 420 |
| 14 | 931 | 1060 | 783 | 1200 | 2350 | 1120 | 6170 | 6620 | 4570 | 4770 | 851 | 515 |
| 15 | 907 | 1010 | 665 | 1150 | 2350 | 1110 | 5440 | 6590 | 4860 | 4750 | 830 | 502 |
| 16 | 858 | 938 | 620 | 1100 | 2370 | 1130 | 5010 | 6490 | 5240 | 4740 | 827 | 517 |
| 17 | 880 | 775 | 590 | 1050 | 2360 | 1290 | 4920 | 6270 | 5060 | 4770 | 812 | 486 |
| 18 | 1100 | 761 | 590 | 1000 | 2400 | 1850 | 4640 | 6140 | 4420 | 4710 | 804 | 508 |
| 19 | 1160 | 751 | 540 | 1000 | 2350 | 4920 | 4560 | 6020 | 4190 | 4650 | 798 | 477 |
| 20 | 1250 | 737 | 640 | 1000 | 2340 | 6200 | 4490 | 5910 | 4070 | 4620 | 790 | 470 |
| 21 | 1710 | 733 | 630 | 1000 | 2200 | 7700 | 4540 | 5870 | 4090 | 5940 | 1160 | 467 |
| 22 | 2990 | 732 | 592 | 1000 | 1430 | 8770 | 5550 | 5770 | 5020 | 7270 | 1360 | 468 |
| 23 | 2650 | 732 | 553 | 1020 | 1360 | 9100 | 6510 | 5700 | 4210 | 7250 | 1480 | 464 |
| 24 | 2340 | 727 | 540 | 1010 | 1240 | 8680 | 6410 | 5600 | 4180 | 5050 | 1200 | 433 |
| 25 | 2260 | 719 | 530 | 955 | 1030 | 10900 | 6090 | 5560 | 5290 | 1590 | 910 | 410 |
| 26 | 2200 | 729 | 540 | 987 | 1000 | 11700 | 6460 | 5610 | 4560 | 1440 | 794 | 425 |
| 27 | 1610 | 926 | 600 | 1050 | 977 | 9880 | 7750 | 5570 | 4410 | 1210 | 748 | 433 |
| 28 | 862 | 2100 | 580 | 1250 | 945 | 7190 | 9210 | 5820 | 4250 | 1150 | 734 | 432 |
| 29 | 829 | 1600 | 580 | 1390 | 920 | 9230 | 8750 | 6220 | 5140 | 1120 | 731 | 429 |
| 30 | 613 | 1220 | 590 | 1500 | --- | 5950 | 14800 | 6350 | 4690 | 1120 | 718 | 427 |
| 31 | 627 | --- | 600 | 1750 | --- | 5190 | --- | 6360 | --- | 1390 | 689 | --- |
| TOTAL | 44771 | 31413 | 43126 | 35212 | 54582 | 124620 | 222310 | 241840 | 149170 | 113190 | 29172 | 14450 |
| MEAN | 1444 | 1047 | 1391 | 1136 | 1882 | 4020 | 7410 | 7801 | 4972 | 3651 | 941 | 482 |
| MAX | 2990 | 2100 | 4000 | 1750 | 2460 | 11700 | 17700 | 18600 | 7240 | 7270 | 1480 | 686 |
| MIN | 613 | 719 | 530 | 640 | 920 | 909 | 4490 | 5560 | 3820 | 1120 | 689 | 410 |
| AC-FT | 88800 | 62310 | 85540 | 69840 | 108300 | 247200 | 441000 | 479700 | 295900 | 224500 | 57860 | 28660 |

CAL YR 1983 TOTAL 841339 MEAN 2304 MAX 9530 MIN 400 AC-FT 1669000
WTR YR 1984 TOTAL 1103456 MEAN 3015 MAX 18600 MIN 410 AC-FT 2189000

BEST COPY AVAILABLE

## 06879650 KINGS CREEK NEAR MANHATTAN, KS
(Hydrologic bench-mark station)

LOCATION.--Lat 39 deg 06 min 07 sec, long 96 deg 35 min 42 sec, in NW1/4 NW1/4 NW1/4 sec.18, T.11 S., R.8 E., Riley County, Hydrologic Unit 10270101, on left bank, 2.9 mi upstream from mouth, 6.0 mi south of Manhattan.

DRAINAGE AREA.--4.09 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,100 ft, from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--5 years, 2.71 cu ft per sec, 1,960 acre-ft per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,530 cu ft per sec July 1, 1982, gage height, 11.28 ft, from rating curve extended above 50 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 cu ft per sec and maximum (*), from rating curve extended as explained above:

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 21 | 1545 | 76 | 4.76 | Apr. 29 | 1415 | 143 | 5.21 |
| Mar. 24 | 0700 | 82 | 4.81 | June 9 | 0915 | 56 | 4.57 |
| Apr. 2 | 1130 | 64 | 4.66 | June 15 | 0915 | *160 | 5.30 |

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | 2.9 | .78 | 1.3 | 1.6 | 21 | 16 | 3.0 | 6.2 | .40 | .00 |
| 2 | .00 | .00 | 3.1 | .72 | 1.4 | 1.6 | 26 | 14 | 2.9 | 5.8 | .35 | .00 |
| 3 | .00 | .00 | 3.2 | .76 | 1.4 | 1.7 | 28 | 13 | 2.8 | 5.3 | .28 | .00 |
| 4 | .00 | .00 | 3.1 | .77 | 1.3 | 1.8 | 23 | 11 | 2.7 | 4.9 | .28 | .00 |
| 5 | .00 | .00 | 2.9 | .83 | 1.1 | 1.6 | 21 | 10 | 2.6 | 4.5 | .23 | .00 |
| 6 | .00 | .00 | 2.7 | .86 | 1.1 | 1.5 | 20 | 9.8 | 2.6 | 4.6 | .19 | .00 |
| 7 | .00 | .00 | 2.7 | .92 | 1.2 | 1.6 | 20 | 8.8 | 4.2 | 3.9 | .17 | .00 |
| 8 | .00 | .00 | 2.5 | 1.2 | 1.2 | 1.4 | 25 | 8.1 | 2.9 | 3.6 | .16 | .00 |
| 9 | .00 | .00 | 2.2 | 1.3 | 1.2 | 1.5 | 23 | 7.6 | 13 | 3.3 | .14 | .00 |
| 10 | .00 | .00 | 2.3 | 1.3 | 1.2 | 1.6 | 21 | 7.4 | 9.4 | 3.0 | .09 | .00 |
| 11 | .00 | .00 | 2.2 | 1.4 | 1.2 | 1.6 | 21 | 6.8 | 7.9 | 2.8 | .07 | .00 |
| 12 | .00 | .00 | 2.1 | 1.5 | 1.1 | 1.8 | 20 | 6.3 | 7.1 | 2.6 | .05 | .00 |
| 13 | .00 | .00 | 2.1 | 1.4 | 1.0 | 1.7 | 19 | 5.9 | 11 | 2.4 | .02 | .00 |
| 14 | .00 | .00 | 2.1 | 1.4 | .98 | 1.7 | 18 | 5.5 | 9.0 | 2.2 | .01 | .00 |
| 15 | .00 | .00 | 1.9 | 1.5 | 1.0 | 1.7 | 16 | 5.3 | 29 | 2.1 | .00 | .00 |
| 16 | .00 | .00 | 1.7 | 1.6 | 1.3 | 1.9 | 15 | 5.0 | 18 | 1.9 | .00 | .00 |
| 17 | .00 | .00 | 1.5 | 1.4 | 1.3 | 3.4 | 14 | 4.6 | 16 | 2.2 | .00 | .00 |
| 18 | .00 | .00 | 1.6 | 1.3 | 1.6 | 9.1 | 13 | 4.4 | 14 | 1.8 | .00 | .00 |
| 19 | .00 | .00 | 1.6 | 1.3 | 1.4 | 12 | 13 | 4.7 | 13 | 1.5 | .00 | .00 |
| 20 | .00 | .00 | 1.4 | 1.2 | 1.4 | 18 | 13 | 4.3 | 12 | 1.4 | .00 | .00 |
| 21 | .00 | .00 | 1.3 | 1.2 | 1.5 | 35 | 15 | 4.0 | 18 | 1.3 | .00 | .00 |
| 22 | .00 | .00 | 1.2 | 1.3 | 1.7 | 26 | 15 | 3.9 | 18 | 1.1 | .00 | .00 |
| 23 | .00 | .00 | 1.1 | 1.3 | 1.8 | 23 | 15 | 3.5 | 15 | .98 | .00 | .00 |
| 24 | .00 | .00 | .92 | 1.2 | 1.8 | 41 | 14 | 3.4 | 12 | .84 | .00 | .00 |
| 25 | .00 | .00 | 1.0 | 1.2 | 1.8 | 26 | 14 | 3.4 | 11 | .80 | .00 | .00 |
| 26 | .00 | .02 | 1.1 | 1.2 | 1.8 | 32 | 13 | 3.2 | 10 | .77 | .00 | .00 |
| 27 | .00 | .20 | 1.1 | 1.2 | 1.8 | 25 | 15 | 3.7 | 9.6 | .61 | .00 | .00 |
| 28 | .00 | 3.1 | .94 | 1.3 | 1.7 | 35 | 12 | 3.4 | 8.3 | .57 | .00 | .00 |
| 29 | .00 | 2.7 | .75 | 1.4 | 1.6 | 29 | 35 | 3.2 | 7.5 | .50 | .00 | .00 |
| 30 | .00 | 2.9 | .74 | 1.4 | --- | 24 | 19 | 3.1 | 6.6 | .47 | .00 | .00 |
| 31 | .00 | --- | .80 | 1.3 | --- | 22 | --- | 3.1 | --- | .42 | .00 | --- |
| TOTAL | .00 | 8.92 | 56.35 | 37.44 | 40.18 | 386.8 | 557 | 196.4 | 299.1 | 74.36 | 2.44 | .00 |
| MEAN | .000 | .30 | 1.82 | 1.21 | 1.39 | 12.5 | 18.6 | 6.34 | 9.97 | 2.40 | .079 | .000 |
| MAX | .00 | 3.1 | 3.2 | 1.6 | 1.8 | 41 | 35 | 16 | 29 | 6.2 | .40 | .00 |
| MIN | .00 | .00 | .74 | .72 | .98 | 1.4 | 12 | 3.1 | 2.6 | .42 | .00 | .00 |
| AC-FT | .00 | 18 | 112 | 74 | 80 | 767 | 1100 | 390 | 593 | 147 | 4.8 | .00 |

CAL YR 1983 TOTAL 1171.97 MEAN 3.21 MAX 38 MIN .00 AC-FT 2320
WTR YR 1984 TOTAL 1658.99 MEAN 4.53 MAX 41 MIN .00 AC-FT 3290

06879650 KINGS CREEK NEAR MANHATTAN, KS--Continued
(Hydrologic bench-mark station)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1980 to current year.

REMARKS.-- No flow on many days during period of record.

### CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | BARO-METRIC PRES-SURE (MM OF HG) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|
| NOV 29... | 14:25 | 2.6 | 432 | 8.0 | 5.0 | 11.3 | 732 | 67 | 220 |
| FEB 23... | 09:00 | 1.7 | 558 | 7.9 | 9.5 | 10.6 | 725 | 230 | K15 |
| APR 02... | 10:40 | 38 | 442 | 8.1 | 6.5 | 11.3 | 732 | -- | -- |
| MAY 14... | 10:20 | 5.4 | 528 | 8.0 | 13.5 | 9.8 | 721 | K13 | K13 |
| JUN 13... | 12:30 | 10 | 502 | 8.1 | 17.5 | -- | -- | -- | -- |

| DATE | TUR-BID-ITY (NTU) | HARD-NESS (MG/L AS CACO3) | HARD-NESS NONCAR-BONATE (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY LAB (MG/L AS CACO3) | CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) | SULFATE DIS-SOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 29... | 2.0 | 250 | 247 | 74 | 15 | 8.8 | 0.3 | 3.5 | 215 | 4.2 | 37 |
| FEB 23... | 0.8 | 310 | 307 | 95 | 17 | 5.4 | 0.1 | 0.9 | 274 | 6.7 | 44 |
| MAY 14... | 0.6 | 250 | 248 | 74 | 15 | 4.7 | 0.1 | 0.9 | 247 | 5.7 | 27 |

| DATE | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) | PHOS-PHORUS, TOTAL (MG/L AS P) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 29... | 5.7 | 0.4 | 12 | 281 | 0.38 | 2.0 | 0.44 | 0.7 | 0.04 | 0.04 |
| FEB 23... | 2.4 | 0.5 | 11 | 339 | 0.46 | 1.6 | 0.16 | 0.3 | 0.02 | 0.03 |
| MAY 14... | 1.7 | 0.4 | 10 | 292 | 0.4 | 4.3 | <0.10 | <0.2 | 0.01 | 0.01 |

K Results based on colony count outside the acceptable range (non-ideal colony count).

## 06879650 KINGS CREEK NEAR MANHATTAN, KS--Continued
(Hydrologic bench-mark station)

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | ALUMINUM, DIS-SOLVED (UG/L AS AL) | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYLLIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHROMIUM, DIS-SOLVED (UG/L AS CR) | COBALT, DIS-SOLVED (UG/L AS CO) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | LITHIUM DIS-SOLVED (UG/L AS LI) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | |
| 14... | 210 | <1 | 99 | 1 | 2 | 1 | <3 | <1 | <3 | 3 | 19 |

| DATE | MANGANESE, DIS-SOLVED (UG/L AS MN) | MERCURY DIS-SOLVED (UG/L AS HG) | MOLYBDENUM, DIS-SOLVED (UG/L AS MO) | NICKEL, DIS-SOLVED (UG/L AS NI) | SELENIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | STRONTIUM, DIS-SOLVED (UG/L AS SR) | VANADIUM, DIS-SOLVED (UG/L AS V) | URANIUM NATURAL DIS-SOLVED (UG/L AS U) | ZINC, DIS-SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | |
| 14... | 6 | <0.1 | <10 | 2 | <1 | <1 | 300 | <6 | 1.7 | 16 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) |
|---|---|---|---|
| NOV | | | |
| 29... | 14:25 | 2.6 | 0 |
| MAY | | | |
| 14... | 10:20 | 5.4 | 0 |

## 06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS

LOCATION.--Lat 39 deg 58 min 48 sec, long 97 deg 00 min 16 sec, in NE1/4 SW1/4 sec.8, T.1 S., R.4 E., Washington County, Hydrologic Unit 10270207, on right bank and 2 ft downstream from bridge on county road, 0.6 mi west of Hollenberg, and 1.75 mi downstream from Nebraska-Kansas State line.

DRAINAGE AREA.--2,752 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1973 to February 1974 (discharge measurements only), March 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,216.10 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Discharge measurements made prior to 1974 water year are published in table of miscellaneous sites in WDR NE-73.

AVERAGE DISCHARGE.--10 years, 531 cu ft per sec, 384,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,600 cu ft per sec June 13, 1984, gage height, 21.00 ft; minimum daily, 40 cu ft per sec Dec. 17, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 12, 1973, reached a stage of 23.07 ft, present datum, from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Oct. 12 | 0730 | 5,260 | 9.75 | May 22 | 1700 | 7,680 | 11.47 |
| Jan. 30 | ---- | 5,200 | ice jam | June 6 | 0600 | 6,280 | 10.50 |
| Apr. 3 | 0700 | 7,400 | 11.28 | June 10 | 0930 | 10,700 | 13.32 |
| Apr. 23 | 1800 | 6,680 | 10.79 | June 13 | 2030 | *36,600 | 21.00 |
| May 1 | 1400 | 4,210 | 8.87 | June 22 | 1800 | 4,480 | 8.78 |

Minimum daily discharge, 100 cu ft per sec Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13700 | 225 | 190 | 220 | 3500 | 313 | 546 | 3860 | 715 | 585 | 314 | 169 |
| 2 | 4000 | 222 | 185 | 230 | 3000 | 307 | 2010 | 2770 | 762 | 542 | 313 | 218 |
| 3 | 1850 | 239 | 155 | 240 | 2700 | 304 | 6960 | 1560 | 723 | 525 | 311 | 263 |
| 4 | 1160 | 261 | 190 | 250 | 2000 | 342 | 6150 | 1460 | 968 | 509 | 310 | 264 |
| 5 | 810 | 257 | 185 | 255 | 1980 | 405 | 3590 | 1560 | 1170 | 522 | 308 | 229 |
| 6 | 639 | 334 | 190 | 260 | 1100 | 413 | 2270 | 1400 | 4300 | 550 | 308 | 199 |
| 7 | 545 | 265 | 195 | 270 | 891 | 457 | 1590 | 1110 | 1880 | 748 | 306 | 165 |
| 8 | 475 | 254 | 195 | 280 | 987 | 405 | 1210 | 930 | 1080 | 1660 | 300 | 155 |
| 9 | 429 | 303 | 200 | 290 | 809 | 371 | 972 | 1720 | 4080 | 837 | 289 | 145 |
| 10 | 409 | 334 | 200 | 295 | 713 | 331 | 815 | 1510 | 8860 | 573 | 281 | 138 |
| 11 | 995 | 390 | 195 | 300 | 620 | 305 | 714 | 1080 | 3350 | 495 | 276 | 134 |
| 12 | 4120 | 382 | 185 | 300 | 599 | 305 | 809 | 856 | 4480 | 454 | 273 | 130 |
| 13 | 2170 | 356 | 175 | 290 | 558 | 304 | 730 | 745 | 25500 | 421 | 267 | 139 |
| 14 | 1170 | 303 | 160 | 280 | 502 | 329 | 657 | 663 | 23800 | 406 | 257 | 137 |
| 15 | 689 | 276 | 145 | 270 | 462 | 312 | 629 | 615 | 10600 | 393 | 247 | 124 |
| 16 | 505 | 254 | 125 | 260 | 428 | 297 | 590 | 585 | 8000 | 377 | 242 | 120 |
| 17 | 413 | 239 | 130 | 250 | 394 | 323 | 546 | 551 | 6450 | 387 | 234 | 116 |
| 18 | 360 | 227 | 135 | 240 | 392 | 329 | 504 | 539 | 4710 | 360 | 225 | 117 |
| 19 | 334 | 221 | 140 | 230 | 377 | 275 | 476 | 2370 | 2610 | 383 | 219 | 118 |
| 20 | 317 | 217 | 145 | 220 | 367 | 295 | 464 | 5480 | 1960 | 370 | 215 | 116 |
| 21 | 306 | 250 | 145 | 230 | 330 | 583 | 1670 | 6450 | 1860 | 371 | 228 | 111 |
| 22 | 296 | 335 | 150 | 250 | 320 | 990 | 4120 | 6940 | 4070 | 373 | 246 | 109 |
| 23 | 280 | 309 | 155 | 270 | 311 | 1170 | 6140 | 5250 | 2310 | 363 | 261 | 109 |
| 24 | 273 | 261 | 160 | 340 | 313 | 968 | 5090 | 3550 | 1340 | 350 | 249 | 105 |
| 25 | 285 | 263 | 175 | 300 | 318 | 731 | 2650 | 2600 | 1010 | 343 | 236 | 100 |
| 26 | 267 | 244 | 190 | 230 | 341 | 720 | 1920 | 2050 | 950 | 345 | 220 | 103 |
| 27 | 250 | 247 | 195 | 400 | 340 | 980 | 1330 | 1460 | 799 | 345 | 205 | 110 |
| 28 | 242 | 183 | 200 | 600 | 329 | 1140 | 972 | 1170 | 923 | 345 | 190 | 113 |
| 29 | 231 | 179 | 205 | 2000 | 319 | 1350 | 1450 | 1030 | 777 | 345 | 171 | 119 |
| 30 | 230 | 170 | 205 | 4000 | --- | 1020 | 3350 | 974 | 657 | 336 | 166 | 126 |
| 31 | 229 | --- | 210 | 4000 | --- | 789 | --- | 784 | --- | 317 | 166 | --- |
| TOTAL | 37972 | 8021 | 5410 | 17870 | 25169 | 17116 | 61214 | 63822 | 131199 | 14950 | 7833 | 4301 |
| MEAN | 1225 | 267 | 175 | 576 | 868 | 552 | 2040 | 2059 | 4373 | 482 | 253 | 143 |
| MAX | 13700 | 390 | 210 | 4000 | 3500 | 1350 | 6960 | 6940 | 25500 | 1660 | 314 | 264 |
| MIN | 229 | 170 | 125 | 220 | 311 | 275 | 464 | 539 | 657 | 317 | 166 | 100 |
| AC-FT | 75330 | 15910 | 10730 | 35450 | 49920 | 33950 | 121400 | 126600 | 260200 | 29650 | 15540 | 8530 |

CAL YR 1983 TOTAL 219453 MEAN 601 MAX 14500 MIN 40 AC-FT 435300
WTR YR 1984 TOTAL 394883 MEAN 1079 MAX 25500 MIN 100 AC-FT 783300

BEST COPY AVAILABLE

## 06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

### CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | BARO-METRIC PRES-SURE (MM OF HG) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) | ALKA-LINITY LAB (MG/L AS CACO3) | CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 25... | 15:30 | 290 | 570 | 7.8 | 12.0 | 11.7 | -- | 10000 | 1200 | 188 | 5.8 |
| NOV | | | | | | | | | | | |
| 16... | 15:35 | 251 | -- | 8.0 | 6.0 | 11.8 | -- | 6200 | 5800 | 174 | 3.4 |
| DEC | | | | | | | | | | | |
| 16... | 10:15 | 125 | 620 | 7.9 | 0.0 | 14.5 | 746 | 3000 | 920 | 235 | 5.7 |
| JAN | | | | | | | | | | | |
| 03... | 09:00 | 184 | 659 | 7.3 | 0.5 | 13.1 | 750 | -- | -- | 205 | 20 |
| 11... | 11:00 | 303 | 552 | 7.8 | 0.0 | 13.7 | 745 | 2700 | 16000 | 198 | 6.1 |
| FEB | | | | | | | | | | | |
| 08... | 16:30 | 912 | 265 | 7.4 | 0.0 | 15.8 | -- | K850 | 12000 | 90 | 6.9 |
| MAR | | | | | | | | | | | |
| 06... | 16:30 | 398 | 504 | 7.8 | 6.0 | 12.4 | 735 | K670 | 11000 | 166 | 5.1 |
| APR | | | | | | | | | | | |
| 11... | 12:00 | 719 | 488 | 8.0 | 11.0 | 10.4 | 731 | 700 | 2100 | 170 | 3.3 |
| MAY | | | | | | | | | | | |
| 10... | 15:00 | 1370 | 262 | 7.5 | 17.0 | 9.3 | 734 | 2500 | 2500 | 83 | 5.1 |
| JUN | | | | | | | | | | | |
| 07... | 11:30 | 1820 | 230 | 7.4 | 23.0 | 7.0 | -- | 9700 | 7800 | 53 | 4.1 |
| JUL | | | | | | | | | | | |
| 09... | 12:45 | 654 | 304 | 7.6 | 25.5 | 7.5 | 736 | 3900 | 15000 | 96 | 4.7 |
| AUG | | | | | | | | | | | |
| 29... | 10:00 | 173 | 530 | 7.7 | 25.0 | 8.7 | 732 | K170 | 2900 | 203 | 7.8 |
| SEP | | | | | | | | | | | |
| 25... | 16:30 | 102 | 615 | 8.6 | 17.0 | 12.2 | -- | K56 | 820 | 207 | 1 |

| DATE | HARD-NESS (MG/L AS CACO3) | HARD-NESS NONCAR-BONATE (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 25... | 190 | 190 | 60 | 9.7 | 34 | 1 | 9.2 | 42 | 33 | 0.3 | 25 | 0.44 |
| NOV | | | | | | | | | | | | |
| 16... | 180 | 184 | 57 | 10 | 33 | 1 | 10 | 40 | 34 | 0.3 | 25 | 0.43 |
| DEC | | | | | | | | | | | | |
| 16... | 240 | 244 | 78 | 12 | 46 | 1 | 6.7 | 54 | 49 | 0.3 | 30 | 0.57 |
| JAN | | | | | | | | | | | | |
| 03... | 230 | 225 | 72 | 11 | 45 | 1 | 9.1 | 57 | 47 | 0.3 | 24 | 0.53 |
| 11... | 200 | 204 | 65 | 10 | 31 | 1 | 6.7 | 38 | 28 | 0.3 | 25 | 0.44 |
| FEB | | | | | | | | | | | | |
| 08... | 87 | 87 | 27 | 4.7 | 11 | 0.5 | 13 | 23 | 12 | 0.2 | 14 | 0.22 |
| MAR | | | | | | | | | | | | |
| 06... | 180 | 176 | 55 | 9.3 | 26 | 0.9 | 10 | 54 | 23 | 0.3 | 19 | 0.4 |
| APR | | | | | | | | | | | | |
| 11... | 180 | 176 | 56 | 8.7 | 24 | 0.8 | 10 | 47 | 24 | 0.3 | 17 | 0.39 |
| MAY | | | | | | | | | | | | |
| 10... | 89 | 89 | 28 | 4.7 | 11 | 0.5 | 10 | 26 | 11 | 0.3 | 12 | 0.21 |
| JUN | | | | | | | | | | | | |
| 07... | 66 | 66 | 20 | 3.9 | 8.0 | 0.4 | 9.5 | 26 | 7.2 | 0.3 | 12 | 0.16 |
| JUL | | | | | | | | | | | | |
| 09... | 120 | 119 | 38 | 5.9 | 15 | 0.6 | 9.8 | 29 | 11 | 0.4 | 15 | 0.25 |
| AUG | | | | | | | | | | | | |
| 29... | 200 | 195 | 60 | 11 | 43 | 1 | 9.0 | 46 | 41 | 0.4 | 20 | 0.48 |
| SEP | | | | | | | | | | | | |
| 25... | 200 | 200 | 62 | 11 | 52 | 2 | 7.2 | 51 | 54 | 0.4 | 17 | 0.52 |

K Results based on colony count outside the acceptable range (non-ideal colony count).

## 06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

### CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SOLIDS, DIS- SOLVED (TONS PER DAY) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO- GEN, TOTAL (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | CARBON, ORGANIC TOTAL (MG/L AS C) | BORON, DIS- SOLVED (UG/L AS B) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT<br>25... | 255 | 1.60 | 1.60 | 0.19 | 1.3 | 2.9 | 0.42 | 0.30 | 5.4 | 50 | 13 | 31 |
| NOV<br>16... | 213 | 1.60 | 1.60 | 0.18 | 1.6 | 3.2 | 0.45 | 0.32 | 6.1 | 50 | 90 | 50 |
| DEC<br>16... | 141 | 2.10 | 2.10 | 0.24 | 0.5 | 2.6 | 0.28 | 0.24 | 2.8 | 60 | 9 | 100 |
| JAN<br>03... | 193 | 2.50 | 2.30 | 0.35 | 1.5 | 4.0 | 0.36 | 0.26 | 5.7 | 50 | 33 | 42 |
| 11... | 264 | 1.70 | 1.70 | 0.18 | 0.7 | 2.4 | 0.32 | 0.24 | 3.8 | 40 | 28 | 45 |
| FEB<br>08... | 392 | 1.40 | 1.40 | 0.79 | 3.5 | 4.9 | 0.73 | 0.35 | 19 | 20 | 300 | 33 |
| MAR<br>06... | 318 | 1.60 | 1.60 | 0.57 | 2.8 | 4.4 | 0.55 | 0.26 | 16 | 30 | 140 | 17 |
| APR<br>11... | 561 | 1.70 | 1.40 | 0.35 | 3.0 | 4.7 | 0.80 | 0.21 | 11 | 30 | 13 | 8 |
| MAY<br>10... | 566 | 1.50 | 1.40 | 0.05 | 6.5 | 8.0 | 2.90 | 0.26 | 56 | 30 | 81 | 4 |
| JUN<br>07... | 586 | 2.70 | 2.70 | 0.05 | 7.5 | 10 | 1.50 | 0.27 | 70 | 30 | 430 | 21 |
| JUL<br>09... | 321 | 2.50 | 2.40 | 0.05 | 6.0 | 8.5 | 0.90 | 0.17 | 37 | 40 | 35 | 1 |
| AUG<br>29... | 165 | 0.40 | 0.38 | 0.03 | 0.4 | 0.8 | 0.41 | 0.20 | 9.4 | 60 | 6 | 4 |
| SEP<br>25... | 104 | 0.50 | 0.50 | 0.02 | 0.3 | 0.8 | 0.22 | 0.18 | 2.8 | 70 | 10 | 74 |

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | ARSENIC TOTAL (UG/L AS AS) | BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) | CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) | COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) | IRON, TOTAL RECOV- ERABLE (UG/L AS FE) | LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) | MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) | SELE- NIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) | ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV<br>16... | 4 | 200 | 1 | <10 | 11 | 4100 | 4 | 150 | 0.1 | 2 | <1 | 30 |
| FEB<br>08... | 5 | 400 | <1 | 20 | <1 | 16000 | <1 | 320 | <0.1 | <1 | <1 | 70 |
| MAY<br>10... | 18 | 900 | <1 | 40 | 47 | 59000 | 59 | 990 | <0.1 | <1 | <1 | 260 |
| AUG<br>29... | 6 | 200 | <1 | <10 | 6 | 2600 | <1 | 300 | <0.1 | 2 | <1 | 20 |

## 06884200 MILL CREEK AT WASHINGTON, KS

LOCATION.--Lat 39 deg 48 min 50 sec, long 97 deg 02 min 20 sec, in SW1/4 SW1/4 SE1/4 sec.1, T.3 S., R.3 E., Washington County, Hydrologic Unit 10270207, on left bank at downstream side of bridge on U.S. Highway 36, 0.5 mi east of Washington, and about 26 mi upstream from mouth.

DRAINAGE AREA.--344 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,261.56 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--25 years, 102 cu ft per sec, 73,900 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 cu ft per sec June 18, 1983, gage height, 29.13 ft; no flow at times in 1963-66, 1980, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum known stages since at least 1903, about 36 ft June 8, 1941, about 34 ft in 1903 and 1908, from information by local residents and newspaper files.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Jan. 30 | 0400 | 1,440 | 11.98 | May 20 | 1700 | 1,640 | 12.16 |
| Mar. 22 | 0700 | 1,290 | 11.34 | June 10 | 1000 | 2,500 | 15.65 |
| Apr. 3 | 0400 | 3,020 | 17.43 | June 14 | 2400 | 1,350 | 10.88 |
| Apr. 22 | 0500 | 2,060 | 13.95 | June 22 | 1500 | *5,930 | 22.55 |
| Apr. 29 | 2300 | 2,700 | 16.39 | | | | |

Minimum discharge, 2.9 cu ft per sec Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 70 | 15 | 15 | 14 | 352 | 30 | 106 | 895 | 84 | 164 | 18 | 8.7 |
| 2 | 21 | 11 | 14 | 16 | 305 | 30 | 1340 | 370 | 139 | 145 | 16 | 13 |
| 3 | 11 | 9.6 | 13 | 18 | 251 | 31 | 2780 | 381 | 256 | 131 | 15 | 9.7 |
| 4 | 8.5 | 22 | 13 | 20 | 169 | 40 | 1890 | 340 | 213 | 126 | 15 | 8.9 |
| 5 | 5.8 | 19 | 14 | 22 | 135 | 50 | 622 | 255 | 425 | 114 | 15 | 8.9 |
| 6 | 4.0 | 13 | 14 | 24 | 117 | 47 | 446 | 221 | 162 | 106 | 14 | 8.6 |
| 7 | 3.3 | 11 | 14 | 26 | 101 | 40 | 370 | 260 | 110 | 192 | 13 | 7.6 |
| 8 | 2.9 | 10 | 14 | 29 | 69 | 34 | 334 | 225 | 80 | 373 | 12 | 8.6 |
| 9 | 3.0 | 20 | 14 | 46 | 64 | 30 | 333 | 184 | 994 | 152 | 12 | 7.5 |
| 10 | 4.4 | 75 | 14 | 52 | 62 | 28 | 302 | 171 | 2410 | 92 | 12 | 7.6 |
| 11 | 11 | 62 | 14 | 43 | 58 | 28 | 280 | 163 | 825 | 73 | 11 | 7.8 |
| 12 | 74 | 44 | 14 | 37 | 63 | 31 | 347 | 146 | 241 | 67 | 11 | 7.1 |
| 13 | 56 | 24 | 14 | 35 | 60 | 34 | 374 | 133 | 318 | 61 | 11 | 7.7 |
| 14 | 19 | 17 | 14 | 30 | 50 | 73 | 266 | 123 | 519 | 56 | 11 | 7.8 |
| 15 | 11 | 15 | 14 | 26 | 45 | 109 | 232 | 107 | 888 | 49 | 11 | 7.3 |
| 16 | 8.2 | 13 | 13 | 23 | 44 | 88 | 223 | 101 | 341 | 45 | 10 | 7.5 |
| 17 | 6.4 | 13 | 12 | 23 | 43 | 81 | 212 | 94 | 209 | 66 | 10 | 7.6 |
| 18 | 5.5 | 13 | 11 | 22 | 43 | 111 | 201 | 85 | 186 | 79 | 10 | 7.1 |
| 19 | 7.3 | 13 | 11 | 22 | 43 | 81 | 188 | 286 | 182 | 58 | 10 | 7.1 |
| 20 | 6.5 | 12 | 11 | 21 | 44 | 91 | 194 | 1450 | 188 | 44 | 10 | 7.0 |
| 21 | 9.4 | 12 | 10 | 23 | 40 | 416 | 796 | 413 | 3060 | 38 | 13 | 7.1 |
| 22 | 9.8 | 13 | 10 | 24 | 36 | 1060 | 1560 | 222 | 5190 | 33 | 11 | 6.6 |
| 23 | 13 | 12 | 10 | 25 | 35 | 489 | 788 | 222 | 2330 | 31 | 12 | 6.7 |
| 24 | 10 | 12 | 10 | 24 | 34 | 390 | 307 | 168 | 504 | 27 | 14 | 6.7 |
| 25 | 13 | 12 | 10 | 25 | 32 | 301 | 226 | 199 | 353 | 24 | 12 | 6.3 |
| 26 | 10 | 12 | 10 | 27 | 31 | 241 | 194 | 247 | 310 | 21 | 10 | 6.2 |
| 27 | 6.7 | 16 | 11 | 31 | 32 | 289 | 171 | 168 | 476 | 21 | 9.9 | 7.3 |
| 28 | 7.0 | 16 | 10 | 99 | 35 | 236 | 137 | 202 | 292 | 22 | 9.7 | 7.3 |
| 29 | 11 | 17 | 10 | 824 | 33 | 195 | 1070 | 155 | 219 | 20 | 9.5 | 6.8 |
| 30 | 12 | 17 | 11 | 1330 | --- | 143 | 2180 | 106 | 185 | 20 | 9.3 | 6.6 |
| 31 | 15 | --- | 12 | 823 | --- | 116 | --- | 91 | --- | 19 | 8.9 | --- |
| TOTAL | 455.7 | 570.6 | 381 | 3804 | 2426 | 4963 | 18469 | 8183 | 21689 | 2469 | 366.3 | 230.7 |
| MEAN | 14.7 | 19.0 | 12.3 | 123 | 83.7 | 160 | 616 | 264 | 723 | 79.6 | 11.8 | 7.69 |
| MAX | 74 | 75 | 15 | 1330 | 352 | 1060 | 2780 | 1450 | 5190 | 373 | 18 | 13 |
| MIN | 2.9 | 9.6 | 10 | 14 | 31 | 28 | 106 | 85 | 80 | 19 | 8.9 | 6.2 |
| AC-FT | 904 | 1130 | 756 | 7550 | 4810 | 9840 | 36630 | 16230 | 43020 | 4900 | 727 | 458 |

CAL YR 1983 TOTAL 44626.9 MEAN 122 MAX 9450 MIN 1.6 AC-FT 88520
WTR YR 1984 TOTAL 64006.3 MEAN 175 MAX 5190 MIN 2.9 AC-FT 127000

## 06884400 LITTLE BLUE RIVER NEAR BARNES, KS

LOCATION.--Lat 39 deg 46 min 33 sec, long 96 deg 51 min 29 sec, in NW1/4 NW1/4 SW1/4 sec.22, T.3 S., R.5 E., Washington County, Hydrologic Unit 10270207, on right bank at downstream side of bridge on State Highway 15E., 0.4 mi downstream from Malone Creek, 4.5 mi north of Barnes, and at mile 19.2.

DRAINAGE AREA.--3,324 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1958 to current year. Published as "at Waterville" April 1958 to September 1960; those prior to April 1958 collected at site 11.5 mi downstream and are considered not equivalent.

GAGE.--Water-stage recorders. Datum of gage is 1,140.06 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for winter period, which are poor. Flow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--26 years, 675 cu ft per sec, 489,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,700 cu ft per sec Oct. 12, 1973, gage height, 27.7 ft, from floodmark; minimum, 22 cu ft per sec Aug. 6, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,500 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Oct. 1 | 1300 | 14,600 | 17.72 | May 21 | 0600 | 7,440 | 12.77 |
| Oct. 12 | 1700 | 4,800 | 10.45 | June 6 | 1400 | 5,660 | 11.26 |
| Jan. 31 | 0200 | 7,320 | 12.67 | June 10 | 1800 | 11,200 | 15.67 |
| Apr. 4 | 0100 | 10,600 | 15.28 | June 14 | 1600 | *30,300 | 23.00 |
| Apr. 23 | 2000 | 7,230 | 12.60 | June 21 | 1000 | 6,970 | 12.83 |
| Apr. 30 | 1600 | 6,220 | 11.75 | June 22 | 1700 | 9,960 | 14.97 |

Minimum discharge, 156 cu ft per sec Sept. 25-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13900 | 287 | 178 | 216 | 5250 | 405 | 959 | 5620 | 1030 | 930 | 340 | 185 |
| 2 | 6760 | 277 | 219 | 215 | 4600 | 400 | 3010 | 4140 | 1140 | 850 | 334 | 219 |
| 3 | 2790 | 274 | 244 | 235 | 3700 | 396 | 8710 | 2870 | 1080 | 795 | 329 | 231 |
| 4 | 1790 | 282 | 268 | 280 | 3110 | 435 | 9340 | 2350 | 1240 | 755 | 340 | 253 |
| 5 | 1290 | 277 | 279 | 310 | 2400 | 466 | 5690 | 2070 | 1230 | 720 | 334 | 242 |
| 6 | 1020 | 310 | 230 | 350 | 1700 | 523 | 3330 | 2070 | 4130 | 705 | 324 | 219 |
| 7 | 837 | 347 | 213 | 375 | 1260 | 516 | 2440 | 1740 | 2870 | 725 | 315 | 198 |
| 8 | 718 | 338 | 190 | 406 | 1170 | 535 | 1920 | 1510 | 1660 | 970 | 303 | 188 |
| 9 | 635 | 332 | 214 | 452 | 1060 | 474 | 1600 | 1680 | 3150 | 1180 | 293 | 179 |
| 10 | 584 | 404 | 226 | 439 | 942 | 452 | 1330 | 2050 | 10500 | 900 | 288 | 177 |
| 11 | 562 | 439 | 226 | 420 | 828 | 411 | 1150 | 1590 | 6720 | 730 | 281 | 170 |
| 12 | 3320 | 479 | 229 | 405 | 760 | 417 | 1170 | 1310 | 2990 | 625 | 282 | 168 |
| 13 | 2930 | 468 | 202 | 395 | 725 | 406 | 1190 | 1110 | 12000 | 555 | 280 | 168 |
| 14 | 1920 | 412 | 195 | 385 | 665 | 452 | 1060 | 973 | 26800 | 515 | 267 | 180 |
| 15 | 1130 | 363 | 190 | 375 | 614 | 496 | 942 | 891 | 18700 | 500 | 269 | 173 |
| 16 | 762 | 327 | 185 | 365 | 585 | 494 | 858 | 831 | 10900 | 495 | 256 | 167 |
| 17 | 614 | 305 | 182 | 355 | 545 | 493 | 791 | 784 | 8320 | 500 | 237 | 167 |
| 18 | 529 | 293 | 178 | 350 | 521 | 528 | 728 | 747 | 6330 | 500 | 240 | 165 |
| 19 | 491 | 284 | 177 | 348 | 514 | 508 | 688 | 1670 | 4010 | 485 | 243 | 165 |
| 20 | 458 | 275 | 176 | 346 | 488 | 410 | 666 | 5170 | 2760 | 468 | 238 | 163 |
| 21 | 442 | 268 | 176 | 341 | 462 | 798 | 1880 | 7050 | 4150 | 440 | 261 | 162 |
| 22 | 422 | 336 | 176 | 338 | 442 | 2240 | 5200 | 6480 | 7930 | 425 | 266 | 160 |
| 23 | 398 | 373 | 176 | 354 | 428 | 2500 | 6520 | 5900 | 8460 | 417 | 265 | 159 |
| 24 | 377 | 337 | 176 | 370 | 414 | 1920 | 6310 | 4430 | 3700 | 400 | 257 | 158 |
| 25 | 374 | 321 | 176 | 382 | 415 | 1560 | 3920 | 3240 | 1880 | 385 | 246 | 157 |
| 26 | 364 | 303 | 180 | 394 | 426 | 1340 | 2720 | 2780 | 1510 | 381 | 240 | 156 |
| 27 | 341 | 312 | 185 | 424 | 437 | 1490 | 2070 | 2170 | 1320 | 381 | 225 | 158 |
| 28 | 321 | 255 | 192 | 521 | 415 | 1560 | 1540 | 1740 | 1510 | 378 | 212 | 160 |
| 29 | 311 | 191 | 205 | 1790 | 413 | 1880 | 2590 | 1530 | 1220 | 375 | 197 | 160 |
| 30 | 308 | 188 | 218 | 5240 | --- | 1520 | 5960 | 1340 | 1040 | 374 | 189 | 165 |
| 31 | 296 | --- | 218 | 6660 | --- | 1170 | --- | 1130 | --- | 353 | 189 | --- |
| TOTAL | 46994 | 9657 | 6279 | 23836 | 35489 | 27195 | 86282 | 78966 | 160280 | 18212 | 8341 | 5372 |
| MEAN | 1516 | 322 | 203 | 769 | 1224 | 877 | 2876 | 2547 | 5343 | 587 | 269 | 179 |
| MAX | 13900 | 479 | 279 | 6660 | 5250 | 2500 | 9340 | 7050 | 26800 | 1180 | 340 | 253 |
| MIN | 296 | 188 | 176 | 215 | 413 | 396 | 666 | 747 | 1030 | 353 | 189 | 156 |
| AC-FT | 93210 | 19150 | 12450 | 47280 | 70390 | 53940 | 171100 | 156600 | 317900 | 36120 | 16540 | 10660 |

CAL YR 1983 TOTAL 298997 MEAN 819 MAX 24900 MIN 102 AC-FT 593100
WTR YR 1984 TOTAL 506903 MEAN 1385 MAX 26800 MIN 156 AC-FT 1005000

## 06884400 LITTLE BLUE RIVER NEAR BARNES, KS--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| DEC | | | | | |
| 01... | 13:25 | 184 | 585 | 7.3 | 1.0 |
| MAR | | | | | |
| 27... | 13:00 | 1420 | 423 | 7.2 | 7.5 |
| MAY | | | | | |
| 07... | 16:00 | 1730 | 500 | 8.1 | 13.0 |
| JUN | | | | | |
| 15... | 17:00 | 14700 | 172 | -- | 24.5 |
| 19... | 15:20 | 3860 | 292 | -- | 25.0 |
| JUL | | | | | |
| 16... | 15:35 | 500 | 700 | 8.1 | 28.5 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| DEC | | | | |
| 01... | 13:25 | 184 | 122 | 61 |
| MAY | | | | |
| 07... | 16:00 | 1730 | 1170 | 5470 |
| JUN | | | | |
| 15... | 17:00 | 14700 | 5460 | 216707 |
| 19... | 15:20 | 3860 | 2830 | 29500 |
| JUL | | | | |
| 16... | 15:35 | 500 | 260 | 351 |
| SEP | | | | |
| 04... | 11:10 | 254 | 184 | 126 |

### PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM |
|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | |
| 07... | 48 | 53 | 65 | 90 | 92 | 96 | 100 | -- |
| JUN | | | | | | | | |
| 15... | 41 | 50 | 66 | 93 | 95 | 97 | 98 | 100 |
| 19... | 45 | 52 | 68 | 99 | 100 | -- | -- | -- |

## 06885500 BLACK VERMILLION RIVER NEAR FRANKFORT, KS

LOCATION.--Lat 39 deg 41 min 03 sec, long 96 deg 26 min 15 sec, in SE1/4 SW1/4 sec.20, T.4 S., R.9 E., Marshall County, Hydrologic Unit 10270205, on right bank at downstream side of highway bridge, 0.2 mi downstream from Robidoux Creek, 2.2 mi southwest of Frankfort, and at mile 19.9.

DRAINAGE AREA.--410 sq mi.

PERIOD OF RECORD.--October 1953 to current year. Monthly discharge only for October to December 1953, published in WSP 1730.

GAGE.--Water-stage recorder. Datum of gage is 1,106.91 ft National Geodetic Vertical Datum of 1929. Prior to May 13, 1954, nonrecording gage at same site and datum.

REMARKS.--Records good except for winter period, which are poor.

AVERAGE DISCHARGE.--31 years, 153 cu ft per sec, 110,800 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,300 cu ft per sec May 30, 1959, gage height, 29.40 ft, maximum gage height, 30.06 ft Oct. 11, 1973; no flow at times in 1955-57.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 3, 1948, reached a stage of 30.2 ft, present site and datum, from floodmarks. Flood in June 1951 reached a stage of 28.6 ft, present site and datum, from floodmarks, discharge, 30,400 cu ft per sec, based on contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 cu ft per sec (revised) and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 25 | 0200 | 3,110 | 21.15 | June 8 | 1500 | 6,650 | 26.50 |
| Apr. 3 | 0500 | 6,900 | 26.75 | June 9 | 2100 | *14,200 | 29.01 |
| Apr. 21 | 2100 | 3,050 | 21.01 | June 15 | 2300 | 7,180 | 27.02 |
| Apr. 30 | 0500 | 6,620 | 26.47 | June 22 | 0100 | 6,660 | 26.51 |

Minimum discharge, 7.0 cu ft per sec Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.4 | 24 | 83 | 27 | 200 | 55 | 213 | 777 | 100 | 150 | 30 | 9.4 |
| 2 | 7.9 | 18 | 63 | 30 | 240 | 46 | 2200 | 476 | 135 | 131 | 29 | 11 |
| 3 | 7.9 | 15 | 45 | 32 | 240 | 45 | 5840 | 363 | 125 | 117 | 27 | 14 |
| 4 | 7.5 | 21 | 42 | 36 | 174 | 61 | 4210 | 331 | 112 | 112 | 26 | 13 |
| 5 | 7.4 | 39 | 39 | 40 | 100 | 97 | 1060 | 249 | 105 | 125 | 27 | 12 |
| 6 | 7.5 | 31 | 38 | 46 | 81 | 66 | 499 | 228 | 100 | 119 | 36 | 11 |
| 7 | 7.7 | 29 | 37 | 51 | 70 | 54 | 369 | 224 | 142 | 127 | 24 | 10 |
| 8 | 7.9 | 29 | 36 | 60 | 71 | 42 | 1300 | 192 | 4210 | 205 | 36 | 9.0 |
| 9 | 8.0 | 32 | 35 | 68 | 73 | 39 | 1220 | 167 | 6180 | 123 | 26 | 8.9 |
| 10 | 9.2 | 421 | 35 | 70 | 72 | 44 | 476 | 154 | 5890 | 87 | 22 | 9.4 |
| 11 | 20 | 124 | 34 | 62 | 71 | 44 | 373 | 147 | 1330 | 80 | 20 | 10 |
| 12 | 47 | 54 | 33 | 55 | 78 | 41 | 1180 | 142 | 752 | 73 | 18 | 10 |
| 13 | 19 | 40 | 32 | 50 | 79 | 58 | 411 | 137 | 675 | 68 | 18 | 11 |
| 14 | 13 | 34 | 31 | 45 | 61 | 71 | 272 | 117 | 445 | 64 | 18 | 12 |
| 15 | 11 | 29 | 28 | 40 | 56 | 133 | 242 | 107 | 3480 | 58 | 17 | 12 |
| 16 | 9.2 | 25 | 25 | 37 | 87 | 124 | 221 | 266 | 4830 | 54 | 15 | 12 |
| 17 | 9.0 | 24 | 22 | 35 | 100 | 337 | 189 | 138 | 888 | 69 | 16 | 11 |
| 18 | 8.5 | 25 | 20 | 33 | 87 | 352 | 162 | 105 | 749 | 67 | 16 | 11 |
| 19 | 11 | 26 | 20 | 33 | 240 | 174 | 147 | 234 | 336 | 55 | 13 | 11 |
| 20 | 25 | 27 | 20 | 33 | 108 | 174 | 140 | 1270 | 321 | 50 | 14 | 11 |
| 21 | 27 | 25 | 20 | 33 | 76 | 693 | 1600 | 276 | 2260 | 47 | 18 | 10 |
| 22 | 59 | 25 | 20 | 33 | 67 | 2180 | 2040 | 438 | 3720 | 53 | 24 | 9.5 |
| 23 | 36 | 26 | 20 | 34 | 60 | 1700 | 689 | 573 | 1160 | 43 | 19 | 9.2 |
| 24 | 20 | 26 | 20 | 36 | 54 | 1910 | 342 | 221 | 468 | 41 | 16 | 9.1 |
| 25 | 15 | 27 | 20 | 40 | 49 | 1970 | 252 | 180 | 292 | 40 | 14 | 8.8 |
| 26 | 14 | 28 | 21 | 44 | 48 | 1300 | 248 | 150 | 241 | 39 | 14 | 8.9 |
| 27 | 13 | 370 | 24 | 50 | 54 | 1590 | 626 | 139 | 379 | 37 | 14 | 8.7 |
| 28 | 11 | 921 | 25 | 60 | 44 | 659 | 257 | 125 | 245 | 35 | 13 | 10 |
| 29 | 11 | 206 | 22 | 78 | 44 | 563 | 1720 | 117 | 473 | 34 | 12 | 11 |
| 30 | 18 | 110 | 22 | 100 | --- | 327 | 4800 | 110 | 221 | 33 | 11 | 11 |
| 31 | 31 | --- | 24 | 140 | --- | 247 | --- | 104 | --- | 32 | 9.6 | --- |
| TOTAL | 507.1 | 2831 | 956 | 1531 | 2784 | 15196 | 33298 | 8257 | 40369 | 2368 | 610.6 | 314.9 |
| MEAN | 16.4 | 94.4 | 30.8 | 49.4 | 96.0 | 490 | 1110 | 266 | 1346 | 76.4 | 19.7 | 10.5 |
| MAX | 59 | 921 | 83 | 140 | 240 | 2180 | 5840 | 1270 | 6180 | 205 | 36 | 14 |
| MIN | 7.4 | 15 | 20 | 27 | 44 | 39 | 140 | 104 | 100 | 32 | 9.6 | 8.7 |
| AC-FT | 1010 | 5620 | 1900 | 3040 | 5520 | 30140 | 66050 | 16380 | 80070 | 4700 | 1210 | 625 |

CAL YR 1983 TOTAL 91905.1 MEAN 252 MAX 8740 MIN 7.4 AC-FT 182300
WTR YR 1984 TOTAL 109022.6 MEAN 298 MAX 6180 MIN 7.4 AC-FT 216200

BEST COPY AVAILABLE

## 06886900 TUTTLE CREEK LAKE NEAR MANHATTAN, KS

LOCATION.--Lat 39 deg 15 min 16 sec, long 96 deg 36 min 08 sec, in NW1/4 NE1/4 SW1/4 sec.24, T.9 S., R.7 E., Pottawatomie County, Hydrologic Unit 10270205, on Big Blue River, near right end of dam, 5.0 mi north of Manhattan and 10.0 mi above mouth.

DRAINAGE AREA.--9,628 sq mi.

PERIOD OF RECORD.--March to April 1960, March 1962 to current year. Prior to October 1968, published as Tuttle Creek Reservoir near Randolph. October 1968 to September 1971 published as Tuttle Creek Reservoir near Manhattan.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to July 1, 1968, at site 19.8 mi upstream at same datum.

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Mar. 15, 1962. Total capacity, 3,186,000 acre-ft consisting of the following: Sedimentation, 211,500 acre-ft below elevation 1,061.0 ft; conservation pool, 177,100 acre-ft between elevations 1,061.0 ft and 1,075.0 ft; flood control pool, 1,937,000 acre-ft between elevations 1,075.0 ft and 1,136.0 ft; and surcharge pool, 860,100 acre-ft between elevations 1,136.0 ft and 1,150.0 ft. Reservoir is used to store water for flood control. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,127.90 ft Oct. 18-20, 1973, contents, 1,958,000 acre-ft; minimum since conservation pool was first filled, 1,060.82 ft Jan. 4, 1967, contents, 231,000 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 1,112.30 ft June 26, contents, 1,282,000 acre-ft; minimum, 1,071.90 ft, Jan. 24, contents, 345,200 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on field survey by Corps of Engineers in 1973)

| | | | | | |
|---|---|---|---|---|---|
| 1,067 | 281,100 | 1,087 | 601,300 | 1,107 | 1,109,000 |
| 1,072 | 346,600 | 1,092 | 708,100 | 1,112 | 1,272,000 |
| 1,077 | 419,500 | 1,097 | 828,300 | 1,117 | 1,453,000 |
| 1,082 | 505,100 | 1,102 | 961,500 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1076.75 | 1078.85 | 1078.94 | 1072.29 | 1075.55 | 1075.27 | 1083.80 | 1093.54 | 1077.22 | 1108.77 | 1075.08 | 1075.41 |
| 2 | 1078.02 | 1078.85 | 1078.80 | 1072.28 | 1077.13 | 1075.23 | 1084.95 | 1094.01 | 1076.90 | 1107.90 | 1075.03 | 1075.36 |
| 3 | 1078.16 | 1078.85 | 1078.67 | 1072.28 | 1078.44 | 1075.16 | 1088.25 | 1094.18 | 1076.52 | 1107.02 | 1075.02 | 1075.26 |
| 4 | 1078.30 | 1078.85 | 1078.55 | 1072.25 | 1079.55 | 1075.11 | 1091.48 | 1094.26 | 1076.14 | 1106.05 | 1075.01 | 1075.16 |
| 5 | 1078.45 | 1078.85 | 1078.45 | 1072.21 | 1080.45 | 1075.04 | 1093.20 | 1094.08 | 1075.82 | 1105.50 | 1074.99 | 1075.09 |
| 6 | 1078.57 | 1078.85 | 1078.25 | 1072.19 | 1080.75 | 1075.04 | 1094.04 | 1093.77 | 1075.60 | 1104.70 | 1074.97 | 1075.03 |
| 7 | 1078.60 | 1078.85 | 1078.15 | 1072.17 | 1080.90 | 1075.13 | 1094.59 | 1093.32 | 1076.41 | 1103.85 | 1074.97 | 1075.16 |
| 8 | 1078.60 | 1078.85 | 1077.92 | 1072.16 | 1081.00 | 1075.17 | 1094.94 | 1092.92 | 1077.36 | 1102.90 | 1074.96 | 1075.13 |
| 9 | 1078.60 | 1078.90 | 1077.45 | 1072.15 | 1080.90 | 1075.28 | 1095.08 | 1092.45 | 1080.50 | 1101.68 | 1074.96 | 1075.10 |
| 10 | 1078.70 | 1078.97 | 1077.07 | 1072.16 | 1080.66 | 1075.35 | 1095.01 | 1092.05 | 1084.00 | 1100.20 | 1074.96 | 1075.08 |
| 11 | 1078.86 | 1079.04 | 1076.68 | 1072.21 | 1080.32 | 1075.37 | 1094.83 | 1091.36 | 1086.45 | 1098.60 | 1074.96 | 1075.02 |
| 12 | 1078.96 | 1079.13 | 1076.21 | 1072.24 | 1079.97 | 1075.37 | 1094.26 | 1090.51 | 1087.15 | 1096.92 | 1075.02 | 1075.10 |
| 13 | 1079.20 | 1079.20 | 1075.82 | 1072.25 | 1079.61 | 1075.31 | 1094.58 | 1089.67 | 1086.35 | 1094.97 | 1075.10 | 1075.16 |
| 14 | 1079.52 | 1079.30 | 1075.38 | 1072.25 | 1079.19 | 1075.22 | 1094.35 | 1088.71 | 1091.13 | 1093.04 | 1075.19 | 1075.29 |
| 15 | 1079.72 | 1079.46 | 1074.87 | 1072.26 | 1078.79 | 1075.24 | 1094.05 | 1087.55 | 1095.94 | 1090.99 | 1075.27 | 1075.35 |
| 16 | 1079.70 | 1079.44 | 1074.39 | 1072.24 | 1078.31 | 1075.23 | 1093.72 | 1086.39 | 1099.90 | 1088.78 | 1075.36 | 1075.41 |
| 17 | 1079.51 | 1079.30 | 1073.87 | 1072.20 | 1077.75 | 1075.29 | 1093.27 | 1085.19 | 1103.79 | 1086.68 | 1075.37 | 1075.47 |
| 18 | 1079.35 | 1079.20 | 1073.32 | 1072.16 | 1077.22 | 1075.47 | 1092.63 | 1083.80 | 1105.44 | 1084.10 | 1075.47 | 1075.62 |
| 19 | 1079.31 | 1079.11 | 1072.76 | 1072.12 | 1076.58 | 1075.58 | 1091.74 | 1082.72 | 1106.96 | 1081.85 | 1075.49 | 1075.68 |
| 20 | 1079.10 | 1079.03 | 1072.41 | 1072.09 | 1075.91 | 1075.63 | 1090.86 | 1082.98 | 1108.25 | 1079.83 | 1075.50 | 1075.76 |
| 21 | 1078.97 | 1079.00 | 1072.14 | 1072.04 | 1075.45 | 1075.97 | 1090.66 | 1083.41 | 1109.72 | 1078.05 | 1075.67 | 1075.77 |
| 22 | 1078.90 | 1078.98 | 1072.09 | 1071.99 | 1075.29 | 1077.02 | 1091.51 | 1083.77 | 1111.06 | 1076.64 | 1075.73 | 1075.87 |
| 23 | 1078.84 | 1078.96 | 1072.10 | 1071.95 | 1075.11 | 1077.93 | 1092.40 | 1084.15 | 1111.84 | 1075.69 | 1075.78 | 1075.88 |
| 24 | 1078.80 | 1078.92 | 1072.12 | 1071.92 | 1075.04 | 1079.22 | 1093.05 | 1084.05 | 1112.16 | 1075.35 | 1075.78 | 1076.03 |
| 25 | 1078.80 | 1078.90 | 1072.15 | 1071.96 | 1075.07 | 1080.27 | 1093.03 | 1083.61 | 1112.27 | 1075.16 | 1075.79 | 1076.03 |
| 26 | 1078.80 | 1078.91 | 1072.18 | 1072.00 | 1075.13 | 1080.92 | 1092.96 | 1083.22 | 1112.15 | 1075.12 | 1075.80 | 1076.02 |
| 27 | 1078.80 | 1078.94 | 1072.21 | 1072.06 | 1075.14 | 1081.34 | 1092.60 | 1082.74 | 1111.60 | 1075.12 | 1075.85 | 1076.12 |
| 28 | 1078.82 | 1079.15 | 1072.23 | 1072.16 | 1075.17 | 1082.41 | 1091.59 | 1081.72 | 1110.95 | 1075.12 | 1075.78 | 1076.13 |
| 29 | 1078.84 | 1079.28 | 1072.26 | 1072.45 | 1075.23 | 1083.04 | 1091.19 | 1080.46 | 1110.26 | 1075.13 | 1075.76 | 1076.18 |
| 30 | 1078.85 | 1079.07 | 1072.28 | 1073.01 | --- | 1083.45 | 1092.64 | 1078.94 | 1109.55 | 1075.09 | 1075.70 | 1076.23 |
| 31 | 1078.85 | --- | 1072.29 | 1074.18 | --- | 1083.65 | --- | 1077.74 | --- | 1075.09 | 1075.53 | --- |
| MEAN | 1078.81 | 1079.03 | 1074.90 | 1072.25 | 1077.78 | 1077.12 | 1092.38 | 1087.33 | 1095.38 | 1089.54 | 1075.35 | 1075.53 |
| MAX | 1079.72 | 1079.46 | 1078.94 | 1074.18 | 1081.00 | 1083.65 | 1095.08 | 1094.26 | 1112.27 | 1108.77 | 1075.85 | 1076.23 |
| MIN | 1076.75 | 1078.85 | 1072.09 | 1071.92 | 1075.04 | 1075.04 | 1083.80 | 1077.74 | 1075.60 | 1075.09 | 1074.96 | 1075.02 |
| (+) | 449,800 | 453,500 | 350,500 | 376,600 | 392,000 | 536,000 | 722,800 | 431,400 | 1,190M | 389,900 | 396,600 | 407,400 |
| (#) | +55,200 | +3,700 | -103,000 | +26,100 | +15,400 | +144,000 | +186,800 | -291,400 | +755,600 | -800,100 | +6,700 | +10,800 |

CAL YR 1983 ........................ (#) -44,100
WTR YR 1984 ........................ (#) +12,800

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.
M EXPRESSED IN THOUSANDS.

## 06887000 BIG BLUE RIVER NEAR MANHATTAN, KS
(National stream-quality accounting network station)

LOCATION.--Lat 39 deg 14 min 14 sec, long 96 deg 34 min 16 sec, in SW1/4 NW1/4 SE1/4 sec.30, T.9 S., R.8 E., Riley County, Hydrologic Unit 10270205, at downstream side of highway bridge, 2.5 mi downstream from Tuttle Creek Dam, 4.0 mi north of Manhattan, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--9,640 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to July 1951 (published in WSP 1139), October 1954 to current year. Records for April 1895 to October 1905, published in previous Annual Reports and Water-Supply Papers, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorders. Datum of gage is 988.86 ft National Geodetic Vertical Datum of 1929. May 1 to July 31, 1951, nonrecording gage above power dam 1.1 mi upstream at datum 8.34 ft higher. Oct. 1 to Nov. 17, 1954, nonrecording gage and Nov. 18, 1954 to Sept. 30, 1974, recording gage at present site and datum 3.00 ft higher.

REMARKS.--Records good. Flow regulated since 1962 by Tuttle Creek Lake (see sta 06886900).

AVERAGE DISCHARGE.--30 years (water years 1955-84), 2,139 cu ft per sec, 1,550,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 93,400 cu ft per sec July 12, 1951, gage height, 36.04 ft, present site and datum, from floodmarks, from rating curve extended above 35,000 cu ft per sec on basis of slope-area measurement of peak flow; minimum, 0.2 cu ft per sec Nov. 23, 1978. Maximum discharge since construction of Tuttle Creek Lake in 1962, 31,500 cu ft per sec June 19, 1967, gage height, 24.61 ft present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 31, 1903, reached a stage of 33.85 ft, and flood in June 1941 reached a stage of about 37.1 ft, from floodmarks and information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,300 cu ft per sec July 18, gage height, 20.43 ft; minimum daily, 27 cu ft per sec Sept. 16-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4900 | 781 | 1990 | 483 | 1020 | 1720 | 3990 | 9200 | 8700 | 15600 | 1590 | 1470 |
| 2 | 4990 | 781 | 2010 | 483 | 1020 | 1960 | 6020 | 9630 | 6180 | 15600 | 1570 | 1470 |
| 3 | 5010 | 781 | 2010 | 710 | 1750 | 1960 | 8560 | 9320 | 6140 | 15500 | 1550 | 1460 |
| 4 | 3710 | 781 | 2000 | 949 | 2980 | 1960 | 9030 | 8670 | 6120 | 15400 | 1540 | 1460 |
| 5 | 1620 | 781 | 2000 | 939 | 2980 | 1950 | 9560 | 9480 | 6050 | 15600 | 1530 | 973 |
| 6 | 1020 | 785 | 1990 | 931 | 4020 | 1710 | 9160 | 11300 | 6020 | 17500 | 1530 | 480 |
| 7 | 1020 | 781 | 1990 | 931 | 6620 | 1680 | 8530 | 11300 | 6680 | 21300 | 1530 | 472 |
| 8 | 1010 | 781 | 2540 | 931 | 6680 | 1470 | 8370 | 11200 | 6350 | 21300 | 1530 | 475 |
| 9 | 1010 | 800 | 3810 | 930 | 6700 | 1470 | 8330 | 11100 | 7980 | 22800 | 1520 | 470 |
| 10 | 1020 | 781 | 3810 | 924 | 6700 | 1470 | 8230 | 11000 | 6920 | 24500 | 1310 | 474 |
| 11 | 1050 | 781 | 3780 | 924 | 6720 | 1680 | 8190 | 12000 | 6470 | 24300 | 844 | 472 |
| 12 | 1010 | 781 | 3780 | 926 | 6690 | 1680 | 8120 | 13500 | 6440 | 23900 | 521 | 468 |
| 13 | 1800 | 781 | 3760 | 920 | 6720 | 1950 | 8110 | 13500 | 4570 | 24600 | 514 | 473 |
| 14 | 2890 | 855 | 3730 | 924 | 6800 | 1950 | 8080 | 13400 | 1890 | 24800 | 510 | 410 |
| 15 | 2900 | 1020 | 3700 | 948 | 6810 | 1930 | 8040 | 14800 | 1840 | 24800 | 509 | 50 |
| 16 | 2890 | 1510 | 3690 | 1000 | 6750 | 1930 | 7980 | 16200 | 1760 | 24800 | 509 | 27 |
| 17 | 2890 | 1990 | 3680 | 1000 | 6760 | 1940 | 8650 | 16300 | 1680 | 24600 | 504 | 27 |
| 18 | 2880 | 1990 | 3710 | 1000 | 6800 | 1980 | 10700 | 16500 | 1600 | 24700 | 505 | 27 |
| 19 | 2940 | 1990 | 3820 | 1000 | 6770 | 2040 | 12800 | 16400 | 1550 | 22800 | 501 | 27 |
| 20 | 2880 | 1990 | 3360 | 1000 | 6810 | 2270 | 13000 | 16500 | 1450 | 19300 | 499 | 27 |
| 21 | 2180 | 1500 | 2050 | 1000 | 5690 | 2400 | 10100 | 16800 | 1460 | 15600 | 506 | 27 |
| 22 | 1550 | 1030 | 1320 | 1010 | 3020 | 3200 | 10100 | 16900 | 1480 | 12600 | 496 | 27 |
| 23 | 1550 | 1020 | 517 | 1010 | 2990 | 3140 | 10200 | 16900 | 2350 | 9110 | 491 | 27 |
| 24 | 1190 | 1020 | 511 | 754 | 2260 | 4710 | 11400 | 17000 | 2900 | 4830 | 687 | 27 |
| 25 | 789 | 1020 | 497 | 504 | 1510 | 4900 | 14000 | 16900 | 4000 | 3410 | 1220 | 36 |
| 26 | 784 | 1040 | 490 | 501 | 1500 | 5060 | 14000 | 16800 | 7130 | 2690 | 1360 | 71 |
| 27 | 782 | 1080 | 489 | 494 | 1480 | 4750 | 15100 | 16900 | 12300 | 1930 | 1480 | 77 |
| 28 | 784 | 1040 | 489 | 493 | 1470 | 4420 | 18800 | 16700 | 15800 | 1820 | 1480 | 74 |
| 29 | 792 | 1540 | 486 | 488 | 1480 | 4610 | 18900 | 16600 | 15800 | 1740 | 1470 | 73 |
| 30 | 791 | 1990 | 488 | 478 | --- | 4330 | 15200 | 16400 | 15700 | 1680 | 1470 | 75 |
| 31 | 781 | --- | 483 | 748 | --- | 4040 | --- | 13900 | --- | 1630 | 1470 | --- |
| TOTAL | 61413 | 33801 | 68960 | 25333 | 129500 | 81860 | 311250 | 433100 | 175310 | 480740 | 32746 | 11726 |
| MEAN | 1981 | 1127 | 2225 | 817 | 4466 | 2641 | 10380 | 13970 | 5844 | 15510 | 1056 | 391 |
| MAX | 5010 | 1990 | 3820 | 1010 | 6810 | 5060 | 18900 | 17000 | 15800 | 24800 | 1590 | 1470 |
| MIN | 781 | 781 | 483 | 478 | 1020 | 1470 | 3990 | 8670 | 1450 | 1630 | 491 | 27 |
| AC-FT | 121800 | 67040 | 136800 | 50250 | 2[illegible]900 | 162400 | 617400 | 859100 | 347700 | 953500 | 64950 | 23260 |

CAL YR 1983 TOTAL 1157817 MEAN 3172 MAX 16500 MIN 90 AC-FT 2297000
WTR YR 1984 TOTAL 1845759 MEAN 5043 MAX 24800 MIN 27 AC-FT 3661000

## 06887000 BIG BLUE RIVER NEAR MANHATTAN, KS--Continued
(National stream-quality accounting network station)

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-58, 1962 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1955 to September 1958, October 1974 to September 1981.
WATER TEMPERATURES: October 1955 to September 1958, October 1974 to September 1981.

### CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) | OXYGEN, DISSOLVED (MG/L) | BAROMETRIC PRESSURE (MM OF HG) | COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) | STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | |
| 19... | 14:00 | 2830 | 441 | 8.3 | 16.0 | 10.8 | 732 | 340 | 1200 |
| DEC | | | | | | | | | |
| 02... | 10:25 | 1930 | 421 | 8.1 | 6.0 | 9.7 | 731 | 140 | 5800 |
| FEB | | | | | | | | | |
| 23... | 13:25 | 3030 | 358 | 7.5 | 4.5 | 7.4 | 728 | E3000 | 210 |
| APR | | | | | | | | | |
| 03... | 09:55 | 5520 | 394 | 7.9 | 5.5 | 12.1 | 725 | K22 | 340 |
| MAY | | | | | | | | | |
| 17... | 11:10 | 15700 | 716 | 7.5 | 16.5 | -- | -- | -- | -- |
| JUL | | | | | | | | | |
| 05... | 11:40 | 16100 | 248 | 7.9 | 23.5 | 8.5 | 732 | 260 | 100 |
| 16... | 14:05 | 23800 | 253 | 7.7 | 27.0 | -- | -- | -- | -- |
| AUG | | | | | | | | | |
| 13... | 12:00 | 512 | 558 | 8.1 | 27.5 | 7.9 | 735 | K500 | 280 |
| SEP | | | | | | | | | |
| 18... | 12:00 | 26 | 1280 | 7.9 | 18.0 | -- | -- | -- | -- |

| DATE | TURBIDITY (NTU) | HARDNESS (MG/L AS CACO3) | HARDNESS NONCARBONATE (MG/L AS CACO3) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY LAB (MG/L AS CACO3) | CARBON DIOXIDE DISSOLVED (MG/L AS CO2) | SULFATE DISSOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 19... | 27 | 180 | 190 | 52 | 12 | 18 | 0.6 | 8.1 | 162 | 1.6 | 48 |
| DEC | | | | | | | | | | | |
| 02... | 15 | 160 | 160 | 46 | 11 | 17 | 0.6 | 8.5 | 142 | 2.2 | 44 |
| FEB | | | | | | | | | | | |
| 23... | 72 | 140 | 140 | 41 | 9.1 | 1[illegible] | 0.5 | 8.7 | 126 | 7.7 | 34 |
| APR | | | | | | | | | | | |
| 03... | 29 | 150 | 152 | 44 | 10 | 17 | 0.6 | 8.5 | 139 | 3.4 | 42 |
| JUL | | | | | | | | | | | |
| 05... | 200 | 96 | 96 | 29 | 5.8 | 7.3 | 0.4 | 6.4 | 80 | 2.7 | 27 |
| AUG | | | | | | | | | | | |
| 13... | 25 | 170 | 171 | 50 | 11 | 16 | 0.6 | 8.2 | 149 | 2.3 | 42 |

| DATE | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | PHOSPHORUS, TOTAL (MG/L AS P) | PHOSPHORUS, DISSOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 19... | 15 | 0.4 | 11 | 275 | 0.37 | 2100 | 1.40 | 1.2 | 0.17 | 0.13 |
| DEC | | | | | | | | | | |
| 02... | 14 | 0.3 | 12 | 244 | 0.33 | 1270 | 1.50 | 1.2 | 0.20 | 0.16 |
| FEB | | | | | | | | | | |
| 23... | 12 | 0.3 | 12 | 217 | 0.3 | 1780 | 1.60 | 1.3 | 0.35 | 0.23 |
| APR | | | | | | | | | | |
| 03... | 12 | 0.3 | 12 | 243 | 0.33 | 5590 | <0.10 | 2.0 | 0.31 | 0.22 |
| JUL | | | | | | | | | | |
| 05... | 5.0 | 0.3 | 10 | 151 | 0.21 | 6560 | 2.00 | 2.0 | 0.40 | 0.17 |
| AUG | | | | | | | | | | |
| 13... | 11 | 0.3 | 14 | 251 | 0.34 | 347 | 1.70 | 1.3 | 0.19 | 0.17 |

K Results based on colony count outside the acceptable range (non-ideal colony count).
E Estimated value.

## 06887000 BIG BLUE RIVER NEAR MANHATTAN, KS--Continued
(National stream-quality accounting network station)

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | ALUMINUM, DISSOLVED (UG/L AS AL) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, DISSOLVED (UG/L AS BA) | BERYLLIUM, DISSOLVED (UG/L AS BE) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM, DISSOLVED (UG/L AS CR) | COBALT, DISSOLVED (UG/L AS CO) | COPPER, DISSOLVED (UG/L AS CU) | IRON, DISSOLVED (UG/L AS FE) | LEAD, DISSOLVED (UG/L AS PB) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 19... | 20 | 4 | 240 | <0.5 | 1 | <1 | <3 | 6 | 9 | <1 |
| FEB 23... | 40 | <1 | 110 | 0.5 | <1 | <1 | <3 | 5 | 110 | <1 |
| APR 03... | 30 | 2 | 120 | 0.5 | 2 | <1 | <3 | 10 | 23 | 42 |
| AUG 13... | 20 | 3 | 160 | <1 | 1 | 3 | <3 | 4 | 8 | <1 |

| DATE | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY DISSOLVED (UG/L AS HG) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | STRONTIUM, DISSOLVED (UG/L AS SR) | VANADIUM, DISSOLVED (UG/L AS V) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 19... | 11 | 2 | <0.1 | 10 | 4 | <1 | 1 | 410 | 8 | 5 |
| FEB 23... | 14 | 7 | <0.1 | <10 | <1 | 1 | <1 | 420 | <6 | 9 |
| APR 03... | 11 | 1 | <0.1 | <10 | 4 | 1 | <1 | 310 | <6 | 13 |
| AUG 13... | 15 | 17 | 0.1 | <10 | 5 | 1 | <1 | 360 | 8 | 25 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|
| OCT 19... | 14:00 | 2830 | 98 | 749 | 68 |
| DEC 02... | 10:25 | 1930 | 14 | 73 | 97 |
| APR 03... | 09:55 | 8520 | 82 | 1890 | 82 |
| JUL 05... | 11:40 | 16100 | 187 | 8130 | 99 |

## 06887500 KANSAS RIVER AT WAMEGO, KS

LOCATION.--Lat 39 deg 11 min 52 sec, long 96 deg 18 min 16 sec, in NW1/4 SW1/4 NE1/4 sec.9, T.10 S., R.10 E., Pottawatomie County, Hydrologic Unit 10270102, at downstream side of bridge on State Highway 99 at Wamego, 3.0 mi downstream from Antelope Creek, and at mile 126.9.

DRAINAGE AREA.--55,280 sq mi, approximately, of which a large area is probably noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1919 to current year.

REVISED RECORDS.--WSP 806: Drainage area. WSP 1310: 1937(M).

GAGE.--Water-stage recorder. Datum of gage is 950.82 ft National Geodetic Vertical Datum of 1929. Prior to Aug. 1, 1934, nonrecording gage and Aug. 1, 1934, to Sept. 30, 1955, water-stage recorder at present site at datum 3.00 ft higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by reservoirs in Colorado, Nebraska, and Kansas, and by numerous small diversions for irrigation above station. Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--65 years, 6,960 cu ft per sec, 3,579,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 400,000 cu ft per sec July 13, 1951, gage height, 30.56 ft, present datum, from rating curve extended above 170,000 cu ft per sec on basis of slope-area measurement of peak flow and flood routing studies; minimum, 73 cu ft per sec Dec. 14, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1903 reached a stage of 29.3 ft, present datum, determined by U.S. Weather Bureau, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 39,000 cu ft per sec Apr. 30, gage height, 14.73 ft; minimum discharge, 570 cu ft per sec Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3900 | 1780 | 3390 | 1300 | 2600 | 2500 | 9640 | 24900 | 16900 | 20800 | 3150 | 2170 |
| 2 | 6140 | 1800 | 4400 | 1400 | 2500 | 2860 | 10200 | 26900 | 12500 | 21000 | 3090 | 2240 |
| 3 | 6340 | 1770 | 5590 | 1500 | 3030 | 2960 | 17100 | 26100 | 11800 | 21000 | 2960 | 2190 |
| 4 | 6230 | 1720 | 5560 | 1300 | 4480 | 3210 | 20900 | 21800 | 11400 | 20400 | 2820 | 2150 |
| 5 | 4080 | 1800 | 5530 | 2000 | 5130 | 3150 | 24400 | 19900 | 10900 | 19800 | 2730 | 2070 |
| 6 | 3090 | 1820 | 5500 | 2200 | 5320 | 3130 | 25000 | 21200 | 10300 | 19700 | 2640 | 1170 |
| 7 | 2930 | 1920 | 5520 | 2400 | 8190 | 2780 | 19900 | 20600 | 10100 | 24600 | 2560 | 942 |
| 8 | 2870 | 2240 | 5050 | 2500 | 9070 | 2740 | 17800 | 20000 | 10000 | 25000 | 2540 | 942 |
| 9 | 2820 | 2370 | 5330 | 2600 | 9070 | 2740 | 17200 | 19300 | 10000 | 25400 | 2520 | 962 |
| 10 | 2840 | 2450 | 5040 | 2700 | 9050 | 2740 | 15900 | 16900 | 13300 | 28700 | 2480 | 952 |
| 11 | 3070 | 2350 | 5000 | 2700 | 9080 | 2730 | 15300 | 19100 | 13000 | 29400 | 2380 | 952 |
| 12 | 3000 | 2100 | 4950 | 2700 | 9310 | 2760 | 14900 | 21200 | 11800 | 30300 | 2160 | 952 |
| 13 | 2830 | 2060 | 4940 | 2700 | 9280 | 3100 | 15100 | 21000 | 11700 | 31200 | 1940 | 972 |
| 14 | 3900 | 1960 | 4860 | 2700 | 9320 | 3190 | 15100 | 20800 | 8360 | 32100 | 1780 | 1690 |
| 15 | 3970 | 1980 | 4720 | 2700 | 9360 | 3180 | 14500 | 21200 | 8070 | 31700 | 1620 | 1340 |
| 16 | 3950 | 2000 | 4620 | 2700 | 9560 | 3170 | 13700 | 25000 | 9110 | 31700 | 1500 | 826 |
| 17 | 3930 | 2710 | 4670 | 2700 | 9360 | 3610 | 13400 | 23900 | 7590 | 31600 | 1430 | 771 |
| 18 | 3960 | 2760 | 4730 | 2700 | 9450 | 4270 | 15100 | 23800 | 6870 | 31300 | 1370 | 744 |
| 19 | 4450 | 2730 | 5040 | 2600 | 9390 | 6190 | 17200 | 23700 | 6240 | 31300 | 1260 | 726 |
| 20 | 4490 | 2690 | 4700 | 2600 | 9400 | 9700 | 19300 | 23900 | 6000 | 27800 | 1250 | 717 |
| 21 | 4310 | 2650 | 3500 | 2600 | 9350 | 10100 | 15500 | 23900 | 6110 | 23300 | 1270 | 691 |
| 22 | 3640 | 1940 | 2600 | 2500 | 6110 | 14200 | 15800 | 24000 | 7500 | 20900 | 1380 | 682 |
| 23 | 4350 | 1740 | 1900 | 2500 | 4740 | 12200 | 16800 | 23800 | 8980 | 18700 | 1610 | 682 |
| 24 | 4100 | 1700 | 1500 | 2400 | 4530 | 14700 | 17500 | 23600 | 5630 | 14400 | 1780 | 615 |
| 25 | 3290 | 1680 | 1400 | 2400 | 2950 | 16700 | 20400 | 23700 | 8150 | 9220 | 1960 | 600 |
| 26 | 3070 | 1700 | 1300 | 2400 | 2620 | 16600 | 20800 | 23400 | 11100 | 5660 | 2100 | 615 |
| 27 | 3000 | 2520 | 1300 | 2300 | 2550 | 16200 | 22000 | 23800 | 15200 | 4260 | 2130 | 724 |
| 28 | 2630 | 3830 | 1300 | 2300 | 2500 | 13500 | 29000 | 23800 | 20700 | 3480 | 2210 | 708 |
| 29 | 2010 | 4010 | 1300 | 2400 | 2480 | 14000 | 31000 | 23600 | 21000 | 3170 | 2180 | 708 |
| 30 | 1960 | 3770 | 1300 | 2400 | --- | 13600 | 35700 | 23700 | 21300 | 3040 | 2120 | 682 |
| 31 | 1830 | --- | 1300 | 2700 | --- | 10500 | --- | 22700 | --- | 2980 | 2150 | --- |
| TOTAL | 112980 | 68550 | 117840 | 74100 | 189780 | 223010 | 556140 | 701200 | 334510 | 643910 | 65070 | 32185 |
| MEAN | 3645 | 2285 | 3801 | 2390 | 6544 | 7194 | 18540 | 22620 | 11150 | 20770 | 2099 | 1073 |
| MAX | 6340 | 4010 | 5590 | 2700 | 9560 | 16700 | 35700 | 26900 | 21300 | 32100 | 3150 | 2240 |
| MIN | 1830 | 1680 | 1300 | 1300 | 2480 | 2500 | 9640 | 16900 | 6000 | 2980 | 1250 | 600 |
| AC-FT | 224100 | 136000 | 233700 | 147000 | 376400 | 442300 | 1103000 | 1391000 | 663500 | 1277000 | 129100 | 63840 |

CAL YR 1983 TOTAL 2095385 MEAN 5741 MAX 20500 MIN 694 AC-FT 4156000
WTR YR 1984 TOTAL 3119275 MEAN 8523 MAX 35700 MIN 600 AC-FT 6187000

## 06887500 KANSAS RIVER AT WAMEGO, KS--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1956 to September 1958, October 1961 to September 1975.
WATER TEMPERATURES: October 1956 to September 1975.
SUSPENDED-SEDIMENT DISCHARGE: October 1957 to September 1975.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT<br>20... | 11:50 | 4660 | 705 | 8.3 | 14.0 |
| NOV<br>14... | 12:40 | 1950 | 578 | 8.6 | 10.5 |
| FEB<br>13... | 11:50 | 9350 | 527 | 8.3 | 4.5 |
| MAR<br>16... | 10:40 | 2980 | 660 | 8.5 | 6.0 |
| APR<br>27... | 11:00 | 20700 | 455 | 8.0 | 12.0 |
| JUN<br>14... | 11:40 | 8120 | 575 | 7.8 | 28.5 |
| JUL<br>11... | 10:30 | 29300 | 292 | 8.1 | 25.0 |
| AUG<br>31... | 10:40 | 2260 | 700 | 8.4 | -- |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| OCT<br>20... | 11:50 | 4660 | 1000 | 12600 |
| NOV<br>14... | 12:40 | 1950 | 34 | 179 |
| FEB<br>13... | 11:50 | 9350 | 155 | 3910 |
| MAR<br>16... | 10:40 | 2980 | 2620 | 21100 |
| APR<br>27... | 11:00 | 20700 | 388 | 21700 |
| JUN<br>14... | 11:40 | 8120 | 1110 | 24300 |
| JUL<br>11... | 10:30 | 29300 | 433 | 34300 |
| AUG<br>31... | 10:40 | 2260 | 97 | 592 |

## 06887500 KANSAS RIVER AT WAMEGO, KS--Continued

## WATER-QUALITY RECORDS

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | |
| 20... | -- | -- | -- | 14 | 14 | 22 | 64 | 100 | -- |
| NOV | | | | | | | | | |
| 14... | -- | -- | -- | 81 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | |
| 13... | -- | -- | -- | 66 | 74 | 89 | 98 | 100 | -- |
| MAR | | | | | | | | | |
| 16... | -- | -- | -- | 4 | 6 | 23 | 37 | 60 | 91 |
| APR | | | | | | | | | |
| 27... | -- | -- | -- | 80 | 85 | 95 | 100 | -- | -- |
| JUN | | | | | | | | | |
| 14... | 24 | 33 | 49 | 69 | -- | -- | -- | 85 | -- |
| JUL | | | | | | | | | |
| 11... | 46 | 47 | 55 | 82 | 89 | 100 | -- | -- | -- |
| AUG | | | | | | | | | |
| 31... | -- | -- | -- | 79 | 85 | 100 | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | SEDIMENT, SUSPENDED (MG/L) | BED MAT. FALL DIAM. % FINER THAN .062 MM | BED MAT. FALL DIAM. % FINER THAN .125 MM | BED MAT. FALL DIAM. % FINER THAN .250 MM | BED MAT. FALL DIAM. % FINER THAN .500 MM | BED MAT. FALL DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | | |
| 14... | 12:40 | 34 | -- | 0 | 4 | 40 | 74 | 89 | 94 | 97 | 98 | 100 |
| APR | | | | | | | | | | | | |
| 27... | 11:00 | 388 | 4 | 7 | 18 | 39 | 68 | 70 | 81 | 84 | 100 | -- |

## 06888350 KANSAS RIVER NEAR BELVUE, KS

LOCATION.--Lat 39 deg 11 min 15 sec, long 96 deg 08 min 50 sec, in NW1/4 NW1/4 NW1/4 sec.13, T.10 S., R.11 E., Wabaunsee County, Hydrologic Unit 10270102, on right bank at downstream side of bridge on county road, 3.5 mi southeast of Belvue, 1.3 mi downstream from Wells Creek, 6.4 mi downstream from Vermillion Creek, and at mile 115.0.

DRAINAGE AREA.--55,870 sq mi, of which a large area is probably noncontributing.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 925.54 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter period and days of no gage-height record, June 9-14, which are poor. Natural flow of stream affected by lakes and reservoirs in Colorado, Nebraska, and Kansas, and by numerous diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,000 cu ft per sec June 11, 1984, gage height, 20.34 ft, from floodmark; minimum discharge, 688 cu ft per sec Sept. 9, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 65,000 cu ft per sec June 11, gage height, 20.34 ft, from floodmark; minimum discharge, 695 cu ft per sec Sept. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2220 | 1930 | 4530 | 1450 | 2950 | 3060 | 12200 | 29300 | 19800 | 22300 | 3880 | 2320 |
| 2 | 5890 | 1970 | 4790 | 1500 | 3150 | 3340 | 13000 | 28500 | 15400 | 22400 | 3850 | 2360 |
| 3 | 6430 | 2040 | 6380 | 1600 | 4250 | 3500 | 24100 | 28600 | 14200 | 22400 | 3450 | 2340 |
| 4 | 6500 | 1890 | 6400 | 1700 | 5010 | 3800 | 29800 | 25100 | 13900 | 21500 | 3130 | 2320 |
| 5 | 4640 | 1950 | 6360 | 1850 | 5940 | 3750 | 27400 | 22700 | 13000 | 21100 | 3040 | 2300 |
| 6 | 2910 | 2020 | 6330 | 2200 | 6160 | 3780 | 28000 | 23500 | 12300 | 20900 | 3010 | 2080 |
| 7 | 2400 | 2030 | 6270 | 2500 | 7920 | 3430 | 23500 | 23200 | 18500 | 24400 | 3100 | 1800 |
| 8 | 2370 | 2350 | 6070 | 2650 | 9680 | 3190 | 24600 | 22500 | 22300 | 25400 | 3040 | 1670 |
| 9 | 2310 | 2560 | 6030 | 2750 | 9730 | 3150 | 23200 | 21800 | 27000 | 25500 | 3080 | 1530 |
| 10 | 2350 | 3380 | 5910 | 2850 | 9750 | 3120 | 19900 | 19600 | 40000 | 28000 | 2950 | 1450 |
| 11 | 2640 | 3210 | 5830 | 2900 | 9700 | 3120 | 18700 | 20900 | 71000 | 28600 | 2630 | 1400 |
| 12 | 2740 | 2470 | 5790 | 2950 | 9940 | 3150 | 18500 | 23000 | 41000 | 29500 | 2350 | 1350 |
| 13 | 2480 | 2340 | 5790 | 3000 | 9930 | 3320 | 18300 | 23100 | 28000 | 30000 | 2210 | 1410 |
| 14 | 3310 | 2280 | 5710 | 3050 | 9990 | 3590 | 18200 | 22800 | 16900 | 30800 | 2170 | 2010 |
| 15 | 3840 | 2240 | 5680 | 3050 | 10000 | 3610 | 17700 | 22600 | 13100 | 30700 | 2160 | 2010 |
| 16 | 3760 | 2300 | 5600 | 3050 | 10500 | 3560 | 17000 | 26000 | 17100 | 30800 | 2140 | 1670 |
| 17 | 3730 | 2730 | 5550 | 3050 | 10300 | 4220 | 16500 | 25400 | 10400 | 30700 | 2130 | 1330 |
| 18 | 3710 | 3040 | 5490 | 3050 | 10300 | 6180 | 17700 | 25300 | 8980 | 30300 | 2110 | 1190 |
| 19 | 4310 | 3010 | 5400 | 3000 | 10300 | 8580 | 19700 | 25100 | 7960 | 30400 | 2080 | 1110 |
| 20 | 4580 | 2950 | 5200 | 3000 | 10200 | 11700 | 21800 | 26000 | 7590 | 27100 | 2050 | 1070 |
| 21 | 4220 | 2920 | 4200 | 3000 | 10200 | 15200 | 20100 | 25500 | 14100 | 23500 | 2130 | 1010 |
| 22 | 3720 | 2640 | 3100 | 2900 | 7850 | 20100 | 20300 | 25400 | 16800 | 21700 | 2100 | 952 |
| 23 | 4030 | 2020 | 2500 | 2850 | 5830 | 16500 | 20300 | 25200 | 12100 | 19700 | 2140 | 918 |
| 24 | 4090 | 1990 | 1950 | 2750 | 5050 | 19600 | 20700 | 25000 | 12700 | 15600 | 2150 | 894 |
| 25 | 3370 | 1980 | 1700 | 2700 | 4110 | 22500 | 22900 | 24900 | 11100 | 9840 | 2260 | 849 |
| 26 | 3000 | 2000 | 1550 | 2650 | 3500 | 20300 | 23600 | 24600 | 13800 | 6390 | 2450 | 805 |
| 27 | 2950 | 3830 | 1450 | 2650 | 3340 | 21500 | 24900 | 25300 | 17000 | 4950 | 2510 | 794 |
| 28 | 2770 | 6950 | 1450 | 2650 | 3210 | 17000 | 29900 | 25400 | 21700 | 4270 | 2540 | 785 |
| 29 | 2020 | 5470 | 1400 | 2650 | 3120 | 17100 | 34900 | 24800 | 22400 | 4030 | 2490 | 762 |
| 30 | 2050 | 4850 | 1400 | 2700 | --- | 16900 | 43500 | 24800 | 22900 | 3870 | 2440 | 727 |
| 31 | 2030 | --- | 1400 | 2800 | --- | 13400 | --- | 24500 | --- | 3690 | 2360 | --- |
| TOTAL | 107370 | 83140 | 137210 | 81450 | 211910 | 285250 | 670900 | 760400 | 583030 | 650340 | 80130 | 43216 |
| MEAN | 3464 | 2771 | 4426 | 2627 | 7307 | 9202 | 22360 | 24530 | 19430 | 20980 | 2585 | 1441 |
| MAX | 6500 | 6950 | 6400 | 3050 | 10500 | 22500 | 43500 | 29300 | 71000 | 30800 | 3880 | 2360 |
| MIN | 2020 | 1890 | 1400 | 1450 | 2950 | 3060 | 12200 | 19600 | 7590 | 3690 | 2050 | 727 |
| AC-FT | 213000 | 164900 | 272200 | 161600 | 420300 | 565800 | 1331000 | 1508000 | 1156000 | 1290000 | 158900 | 85720 |

CAL YR 1983 TOTAL 2251405 MEAN 6168 MAX 23100 MIN 706 AC-FT 4466000
WTR YR 1984 TOTAL 3694346 MEAN 10090 MAX 71000 MIN 727 AC-FT 7328000

## 06888500 MILL CREEK NEAR PAXICO, KS

LOCATION.--Lat 39 deg 03 min 44 sec, long 96 deg 10 min 52 sec, in SW1/4 NE1/4 SW1/4 sec.27, T.11 S., R.11 E., Wabaunsee County, Hydrologic Unit 10270102, at downstream side of bridge on Interstate Highway 70, 1.0 mi southwest of Paxico, 2.0 mi downstream from Kuenzli Creek, and 16.0 mi upstream from mouth.

DRAINAGE AREA.--316 sq mi.

PERIOD OF RECORD.--December 1953 to current year.

REVISED RECORDS.--WSP 1560: 1954, 1957.

GAGE.--Water-stage recorder. Datum of gage is 964.92 ft National Geodetic Vertical Datum of 1929. Prior to Apr. 15, 1958, nonrecording gage at same site and datum.

REMARKS.--Records good except those for days of ice effect, Dec. 16, 19-24, Jan. 13-15, 17, 19, which are poor.

AVERAGE DISCHARGE.--30 years (water years 1955-84), 177 cu ft per sec, 128,200 acre ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,200 cu ft per sec Sept. 26, 1973, gage height, 32.21 ft; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum known stage since at least 1935, 34.7 ft July 12, 1951, from floodmarks, discharge, 77,200 cu ft per sec, from contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Nov. 27 | 1400 | 2,570 | 9.03 | Apr. 2 | 2000 | 2,800 | 9.39 |
| Mar. 19 | 0100 | 7,080 | 16.18 | Apr. 8 | 1500 | 3,780 | 11.05 |
| Mar. 21 | 0100 | 4,750 | 12.61 | Apr. 27 | 0700 | 3,280 | 10.22 |
| Mar. 21 | 2200 | 4,450 | 12.15 | Apr. 29 | 2400 | *14,500 | 23.97 |
| Mar. 24 | 1400 | 3,400 | 10.42 | June 22 | 0900 | 6,190 | 14.83 |
| Mar. 26 | 1800 | 2,870 | 9.52 | | | | |

Minimum discharge, 7.6 cu ft per sec Sept. 25-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.7 | 23 | 255 | 166 | 137 | 169 | 602 | 1030 | 192 | 153 | 30 | 12 |
| 2 | 9.7 | 33 | 235 | 165 | 131 | 166 | 1270 | 855 | 178 | 140 | 30 | 12 |
| 3 | 9.4 | 29 | 228 | 160 | 126 | 161 | 1370 | 910 | 170 | 130 | 29 | 12 |
| 4 | 9.4 | 28 | 232 | 160 | 120 | 216 | 820 | 678 | 166 | 123 | 26 | 11 |
| 5 | 9.5 | 27 | 218 | 178 | 110 | 227 | 667 | 584 | 158 | 118 | 26 | 11 |
| 6 | 9.7 | 27 | 204 | 548 | 98 | 200 | 591 | 555 | 149 | 112 | 26 | 10 |
| 7 | 9.7 | 29 | 194 | 464 | 101 | 190 | 619 | 534 | 472 | 114 | 25 | 9.0 |
| 8 | 9.7 | 29 | 190 | 436 | 96 | 178 | 3080 | 463 | 214 | 98 | 25 | 12 |
| 9 | 9.6 | 50 | 188 | 359 | 95 | 169 | 1550 | 422 | 302 | 82 | 25 | 13 |
| 10 | 9.8 | 404 | 185 | 237 | 96 | 167 | 965 | 396 | 650 | 69 | 24 | 12 |
| 11 | 24 | 176 | 185 | 190 | 93 | 164 | 804 | 362 | 261 | 63 | 23 | 11 |
| 12 | 26 | 116 | 183 | 173 | 89 | 162 | 1040 | 338 | 211 | 57 | 22 | 10 |
| 13 | 17 | 96 | 180 | 166 | 84 | 162 | 675 | 318 | 627 | 54 | 21 | 10 |
| 14 | 14 | 82 | 172 | 164 | 83 | 160 | 585 | 290 | 343 | 50 | 21 | 82 |
| 15 | 11 | 72 | 173 | 160 | 85 | 157 | 547 | 275 | 291 | 47 | 20 | 31 |
| 16 | 10 | 64 | 170 | 153 | 379 | 155 | 507 | 305 | 247 | 45 | 19 | 16 |
| 17 | 10 | 61 | 159 | 148 | 261 | 1160 | 459 | 262 | 199 | 46 | 18 | 11 |
| 18 | 11 | 60 | 155 | 141 | 240 | 1970 | 420 | 246 | 177 | 46 | 17 | 9.4 |
| 19 | 46 | 58 | 150 | 136 | 254 | 3000 | 390 | 249 | 163 | 43 | 17 | 9.3 |
| 20 | 28 | 55 | 150 | 132 | 212 | 1540 | 370 | 410 | 165 | 40 | 17 | 9.1 |
| 21 | 27 | 52 | 150 | 122 | 202 | 3010 | 971 | 282 | 319 | 37 | 22 | 8.5 |
| 22 | 34 | 51 | 150 | 128 | 196 | 1680 | 864 | 258 | 2240 | 35 | 24 | 8.2 |
| 23 | 26 | 50 | 145 | 129 | 185 | 908 | 621 | 246 | 677 | 33 | 22 | 8.2 |
| 24 | 25 | 52 | 145 | 123 | 174 | 2240 | 514 | 220 | 372 | 32 | 19 | 8.2 |
| 25 | 22 | 50 | 150 | 124 | 167 | 1150 | 459 | 211 | 266 | 31 | 17 | 7.9 |
| 26 | 21 | 51 | 150 | 186 | 166 | 1710 | 419 | 200 | 229 | 31 | 16 | 7.6 |
| 27 | 20 | 1550 | 171 | 197 | 173 | 1350 | 1530 | 378 | 269 | 31 | 16 | 7.8 |
| 28 | 18 | 943 | 175 | 170 | 180 | 1280 | 601 | 413 | 221 | 31 | 15 | 8.1 |
| 29 | 17 | 376 | 166 | 168 | 170 | 1260 | 4330 | 254 | 191 | 31 | 14 | 8.2 |
| 30 | 23 | 296 | 159 | 165 | --- | 792 | 4030 | 222 | 171 | 31 | 13 | 8.2 |
| 31 | 25 | --- | 161 | 152 | --- | 669 | --- | 206 | --- | 31 | 13 | --- |
| TOTAL | 551.2 | 4990 | 5538 | 6100 | 4503 | 26522 | 31670 | 12372 | 10290 | 1984 | 652 | 393.7 |
| MEAN | 17.8 | 166 | 179 | 197 | 155 | 856 | 1056 | 399 | 343 | 64.0 | 21.0 | 13.1 |
| MAX | 46 | 1550 | 255 | 548 | 379 | 3010 | 4330 | 1030 | 2240 | 153 | 30 | 82 |
| MIN | 9.4 | 23 | 145 | 122 | 83 | 155 | 370 | 200 | 149 | 31 | 13 | 7.6 |
| AC-FT | 1090 | 9900 | 10980 | 12100 | 8930 | 52610 | 62820 | 24540 | 20410 | 3940 | 1290 | 781 |

CAL YR 1983 TOTAL 104317.2 MEAN 286 MAX 9550 MIN 9.3 AC-FT 206900
WTR YR 1984 TOTAL 105565.9 MEAN 288 MAX 4330 MIN 7.6 AC-FT 209400

## 06889000 KANSAS RIVER AT TOPEKA, KS

LOCATION.--Lat 39 deg 04 min 00 sec, long 95 deg 38 min 58 sec, in SW1/4 SW1/4 NW1/4 sec.28, T.11 S., R.16 E., Shawnee County, Hydrologic Unit 10270102, near right bank at downstream side of Sardou Bridge in Topeka, 2.3 mi upstream from Soldier Creek (diversion channel) and at mile 83.1.

DRAINAGE AREA.--56,720 sq mi, approximately, of which a large area is probably noncontributing.

PERIOD OF RECORD.--April to August 1904 (gage heights only), June 1917 to current year. Gage-height records for this vicinity since August 1904 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 806: Drainage area. WSP 1310: 1920(M), 1922(M).

GAGE.--Water-stage recorder. Datum of gage is 851.66 ft National Geodetic Vertical Datum of 1929. Prior to Feb. 28, 1961, recording or nonrecording gages at several sites within 8,000 ft of present site at various datums.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by reservoirs in Colorado, Nebraska, and Kansas, and by numerous diversions above station.

AVERAGE DISCHARGE.--67 years, 5,516 cu ft per sec, 3,996,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 469,000 cu ft per sec July 13, 1951, gage height, 35.8 ft, from floodmark, present site and datum; minimum, 112 cu ft per sec Dec. 16, 1940, result of freezup. Maximum stage known since at least 1844, that of July 13, 1951.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1903 (second highest since 1844) reached a stage of about 33 ft, present site and datum, from floodmarks at site 5,900 ft upstream, discharge, about 300,000 cu ft per sec. A flood in the spring of 1844 is known to have been higher than that of 1903.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 69,400 cu ft per sec June 10, gage height, 20.64 ft; minimum, 863 cu ft per sec Sept. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 969 | 1950 | 4450 | 1650 | 2550 | 3130 | 12800 | 35700 | 21100 | 21300 | 3620 | 2320 |
| 2 | 2950 | 1870 | 4010 | 1700 | 2750 | 3100 | 12400 | 28000 | 16400 | 21000 | 3700 | 2460 |
| 3 | 5570 | 1900 | 4940 | 1750 | 3000 | 3370 | 23100 | 29400 | 13200 | 21100 | 3580 | 2430 |
| 4 | 5990 | 2010 | 6060 | 1850 | 3460 | 3780 | 28800 | 26400 | 12800 | 20900 | 3400 | 2350 |
| 5 | 5840 | 1750 | 5990 | 1950 | 4700 | 4010 | 28100 | 23100 | 12500 | 20100 | 3290 | 2320 |
| 6 | 3960 | 1820 | 5870 | 2050 | 5100 | 3830 | 27100 | 22500 | 11400 | 19900 | 3190 | 2200 |
| 7 | 2870 | 1890 | 5740 | 2150 | 5580 | 3720 | 24800 | 23000 | 14200 | 21000 | 3200 | 1470 |
| 8 | 2600 | 1880 | 5690 | 2200 | 8430 | 3380 | 27400 | 22200 | 20400 | 24600 | 3150 | 1400 |
| 9 | 2490 | 2330 | 5270 | 2200 | 9240 | 3210 | 30000 | 21300 | 23600 | 24200 | 3100 | 1290 |
| 10 | 2460 | 3350 | 5440 | 2250 | 9260 | 3170 | 22000 | 19900 | 52600 | 25500 | 3090 | 1240 |
| 11 | 2870 | 4180 | 5220 | 2300 | 9260 | 3130 | 19800 | 19200 | 25000 | 26900 | 2960 | 1230 |
| 12 | 2920 | 3160 | 5100 | 2300 | 9340 | 3170 | 20400 | 21300 | 15900 | 27500 | 2630 | 1200 |
| 13 | 2840 | 2450 | 5070 | 2300 | 9510 | 3180 | 18800 | 22300 | 14100 | 28300 | 2220 | 1190 |
| 14 | 2610 | 2310 | 5030 | 2300 | 9440 | 3440 | 18300 | 21900 | 14000 | 29000 | 2060 | 1590 |
| 15 | 3540 | 2210 | 4990 | 2300 | 9560 | 3620 | 17800 | 21600 | 10000 | 29000 | 1990 | 2060 |
| 16 | 3790 | 2170 | 4860 | 2300 | 10100 | 3600 | 17000 | 23300 | 18000 | 29000 | 1930 | 1630 |
| 17 | 3730 | 2200 | 4920 | 2300 | 10700 | 4780 | 16200 | 24800 | 13800 | 29100 | 1870 | 1170 |
| 18 | 3710 | 2740 | 4900 | 2300 | 10200 | 6560 | 16200 | 23900 | 9860 | 28500 | 1850 | 1110 |
| 19 | 4070 | 2940 | 4700 | 2300 | 10200 | 15200 | 18000 | 24100 | 8630 | 28700 | 1790 | 1050 |
| 20 | 4570 | 2900 | 4400 | 2250 | 10100 | 11500 | 19800 | 25400 | 8010 | 26800 | 1710 | 1030 |
| 21 | 4550 | 2850 | 3500 | 2250 | 9930 | 18700 | 21900 | 24600 | 11000 | 23700 | 1840 | 988 |
| 22 | 4320 | 2850 | 2200 | 2250 | 9460 | 23500 | 21100 | 24200 | 24700 | 21000 | 1930 | 956 |
| 23 | 3720 | 2310 | 2000 | 2200 | 6120 | 19700 | 20400 | 24300 | 14400 | 19900 | 2070 | 927 |
| 24 | 4230 | 1990 | 1800 | 2200 | 5080 | 19400 | 20100 | 24000 | 11800 | 16700 | 2220 | 898 |
| 25 | 3970 | 1940 | 1700 | 2200 | 4780 | 26700 | 20700 | 23900 | 10200 | 12400 | 2250 | 904 |
| 26 | 3230 | 1980 | 1650 | 2200 | 3750 | 21700 | 22700 | 23700 | 10300 | 7050 | 2410 | 863 |
| 27 | 2950 | 3400 | 1650 | 2200 | 3480 | 25200 | 25600 | 24700 | 14900 | 5530 | 2430 | 865 |
| 28 | 2870 | 10000 | 1600 | 2250 | 3390 | 19100 | 26600 | 26200 | 18600 | 4400 | 2520 | 882 |
| 29 | 2550 | 7070 | 1600 | 2300 | 3220 | 17800 | 31700 | 24200 | 21700 | 4000 | 2510 | 900 |
| 30 | 2180 | 5080 | 1600 | 2350 | --- | 17600 | 51300 | 24000 | 21700 | 3800 | 2460 | 910 |
| 31 | 2020 | --- | 1650 | 2400 | --- | 14900 | --- | 23800 | --- | 3660 | 2410 | --- |
| TOTAL | 106939 | 87480 | 123600 | 67500 | 201690 | 317180 | 680900 | 746900 | 494800 | 624540 | 79380 | 41833 |
| MEAN | 3450 | 2916 | 3987 | 2177 | 6955 | 10230 | 22700 | 24090 | 16490 | 20150 | 2561 | 1394 |
| MAX | 5990 | 10000 | 6060 | 2400 | 10700 | 26700 | 51300 | 35700 | 52600 | 29100 | 3700 | 2460 |
| MIN | 969 | 1750 | 1600 | 1650 | 2550 | 3100 | 12400 | 19200 | 8010 | 3660 | 1710 | 863 |
| AC-FT | 212100 | 173500 | 245200 | 133900 | 400100 | 629100 | 1351000 | 1481000 | 981400 | 1239000 | 157500 | 82980 |

CAL YR 1983 TOTAL 2411153 MEAN 6606 MAX 36300 MIN 801 AC-FT 4783000
WTR YR 1984 TOTAL 3572742 MEAN 9762 MAX 52600 MIN 863 AC-FT 7087000

BEST COPY AVAILABLE

## 06889100 SOLDIER CREEK NEAR GOFF, KS

LOCATION.--Lat 39 deg 37 min 27 sec, long 95 deg 57 min 57 sec, in NW1/4 NW1/4 NE1/4 sec.16, T.5 S., R.13 E., Nemaha County, Hydrologic Unit 10270102, 20 ft downstream from highway bridge, 3.3 mi southwest of Goff, and at mile 71.9.

DRAINAGE AREA.--2.06 sq mi.

PERIOD OF RECORD.--March 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,297.10 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--20 years, 1.39 cu ft per sec, 1,010 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,080 cu ft per sec May 10, 1970, gage height, 15.18 ft, from rating curve extended above 250 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Apr. 2 | 1230 | 166 | 7.17 | June 9 | 0845 | *3,250 | 14.14 |
| Apr. 3 | 1715 | 246 | 8.17 | June 15 | 0430 | 811 | 12.03 |
| Apr. 27 | 0015 | 165 | 7.15 | June 15 | 1400 | 366 | 9.44 |
| Apr. 29 | 1415 | 503 | 10.66 | June 21 | 0930 | 497 | 10.61 |
| June 7 | 2245 | 574 | 11.12 | | | | |

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .27 | .60 | .03 | 1.4 | .21 | .91 | 2.4 | .14 | .86 | .02 | .00 |
| 2 | .00 | .28 | .47 | .03 | 1.0 | .23 | 33 | 1.8 | .11 | .68 | .00 | .00 |
| 3 | .00 | 1.4 | .45 | .03 | .71 | .26 | 56 | 1.9 | .11 | .58 | .00 | .00 |
| 4 | .00 | .24 | .40 | .05 | .42 | .50 | 10 | 1.2 | .11 | 11 | .00 | .00 |
| 5 | .00 | .14 | .35 | .20 | .40 | .32 | 3.0 | .89 | .10 | 1.1 | .05 | .00 |
| 6 | .00 | .19 | .35 | .50 | .40 | .22 | 2.3 | .85 | .08 | .99 | .05 | .00 |
| 7 | .00 | .19 | .35 | 1.5 | .37 | .31 | 5.3 | .78 | 60 | 7.2 | .14 | .00 |
| 8 | .00 | .20 | .30 | 3.0 | .29 | .26 | 24 | .58 | 29 | .89 | .36 | .00 |
| 9 | .00 | 14 | .28 | 4.0 | .24 | .24 | 4.3 | .41 | 244 | .39 | .15 | .00 |
| 10 | .00 | 5.1 | .25 | 3.0 | .28 | .27 | 2.7 | .36 | 4.0 | .27 | .07 | .00 |
| 11 | .05 | .32 | .23 | 2.3 | .31 | .29 | 2.3 | .31 | 2.2 | .22 | .06 | .00 |
| 12 | .00 | .20 | .26 | 1.1 | .28 | .60 | 2.2 | .30 | 2.0 | .13 | .00 | .00 |
| 13 | .00 | .14 | .18 | .74 | .22 | .45 | 1.5 | .27 | 1.9 | .08 | .00 | .00 |
| 14 | .00 | .11 | .13 | .60 | .20 | .79 | 1.4 | .19 | 1.6 | .06 | .00 | .00 |
| 15 | .00 | .07 | .10 | .45 | .63 | .75 | 1.4 | .21 | 134 | .06 | .00 | .00 |
| 16 | .00 | .05 | .07 | .35 | 2.9 | .94 | 1.4 | .21 | 2.3 | .03 | .00 | .00 |
| 17 | .00 | .06 | .04 | .30 | .61 | 6.9 | .91 | .17 | .97 | .06 | .00 | .00 |
| 18 | .00 | .06 | .02 | .30 | 4.1 | 2.6 | .90 | .17 | .47 | .01 | .00 | .00 |
| 19 | .17 | .07 | .01 | .30 | .91 | 4.4 | .82 | .79 | .33 | .01 | .00 | .00 |
| 20 | .09 | .08 | .00 | .30 | .38 | 3.5 | 1.2 | .65 | 3.3 | .01 | .00 | .00 |
| 21 | 1.3 | .06 | .00 | .30 | .30 | 16 | 22 | .28 | 101 | .01 | .00 | .00 |
| 22 | .63 | .10 | .00 | .30 | .22 | 21 | 6.6 | .60 | 2.1 | .01 | .00 | .00 |
| 23 | .33 | .19 | .00 | .35 | .22 | 8.1 | 2.1 | .32 | .77 | .00 | .00 | .00 |
| 24 | .31 | .20 | .00 | .50 | .18 | 34 | 1.3 | .23 | .26 | .01 | .00 | .00 |
| 25 | .26 | .24 | .00 | 1.0 | .19 | 4.6 | .99 | .35 | .11 | .01 | .00 | .00 |
| 26 | .26 | .43 | .02 | 2.0 | .26 | 16 | 7.0 | .21 | .04 | .01 | .00 | .00 |
| 27 | .22 | 26 | .10 | 4.0 | .40 | 5.0 | 15 | .22 | .03 | .01 | .00 | .00 |
| 28 | .22 | 3.8 | .05 | 3.0 | .57 | 4.8 | 2.0 | .23 | 7.0 | .02 | .00 | .00 |
| 29 | .23 | .82 | .04 | 4.0 | .29 | 1.9 | 97 | .14 | 2.9 | .03 | .00 | .00 |
| 30 | .85 | .65 | .03 | 2.0 | --- | 1.1 | 5.1 | .14 | 1.0 | .03 | .00 | .00 |
| 31 | .38 | --- | .03 | 2.0 | --- | 1.0 | --- | .14 | --- | .02 | .00 | --- |
| TOTAL | 5.30 | 55.66 | 5.11 | 38.53 | 18.68 | 137.54 | 314.63 | 17.30 | 601.93 | 24.79 | .90 | .00 |
| MEAN | .17 | 1.86 | .16 | 1.24 | .64 | 4.44 | 10.5 | .56 | 20.1 | .80 | .029 | .000 |
| MAX | 1.3 | 26 | .60 | 4.0 | 4.1 | 34 | 97 | 2.4 | 244 | 11 | .36 | .00 |
| MIN | .00 | .05 | .00 | .03 | .16 | .21 | .82 | .14 | .03 | .00 | .00 | .00 |
| AC-FT | 11 | 110 | 10 | 76 | 37 | 273 | 624 | 34 | 1190 | 49 | 1.8 | .00 |

CAL YR 1983 TOTAL 714.09 MEAN 1.96 MAX 83 MIN .00 AC-FT 1420
WTR YR 1984 TOTAL 1220.37 MEAN 3.33 MAX 244 MIN .00 AC-FT 2420

## 06889120 SOLDIER CREEK NEAR BANCROFT, KS

LOCATION.--Lat 39 deg 35 min 42 sec, long 95 deg 58 min 17 sec, in NE1/4 NW1/4 NW1/4 sec.28, T.5 S., R.13 E., Nemaha County, Hydrologic Unit 10270102, at downstream side of highway bridge, 4.0 mi west of Bancroft, and at mile 68.7.

DRAINAGE AREA.--10.5 sq mi.

PERIOD OF RECORD.--March 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,239.50 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--20 years, 6.66 cu ft per sec, 4,830 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,100 cu ft per sec May 10, 1970, gage height, 16.09 ft, from rating curve extended above 1,500 cu ft per sec on basis of contracted-opening and flow-over-road measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Apr. 3 | 1730 | 1,100 | 10.74 | June 9 | 0830 | *2,230 | 13.74 |
| Apr. 26 | 2245 | 572 | 8.06 | June 15 | 0645 | 1,750 | 12.80 |
| Apr. 29 | 1600 | 1,950 | 13.21 | June 21 | 0945 | 1,760 | 12.83 |

No flow Oct. 1.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .60 | 2.0 | .80 | 4.5 | 3.0 | 7.6 | 8.7 | .92 | 1.5 | .33 | .03 |
| 2 | .01 | .60 | 1.5 | 1.0 | 3.5 | 2.9 | 155 | 7.3 | 1.0 | 2.0 | .30 | .06 |
| 3 | .02 | 5.7 | 2.2 | 1.2 | 2.5 | 4.1 | 327 | 7.1 | .79 | 1.6 | .27 | .04 |
| 4 | .10 | 2.1 | 2.0 | 1.4 | 2.0 | 4.2 | 72 | 5.6 | .81 | 43 | .27 | .04 |
| 5 | .08 | .79 | 1.5 | 2.5 | 1.5 | 3.1 | 14 | 4.6 | .79 | 2.0 | .33 | .03 |
| 6 | .08 | .83 | 1.7 | 5.0 | 1.5 | 2.8 | 11 | 4.5 | .69 | 1.6 | .33 | .04 |
| 7 | .06 | 1.0 | 1.6 | 15 | 1.7 | 2.5 | 18 | 4.4 | 231 | 25 | .04 | .02 |
| 8 | .15 | .72 | 1.6 | 17 | 1.9 | 2.8 | 141 | 3.5 | 293 | 2.0 | 1.1 | .03 |
| 9 | .20 | 74 | 1.4 | 16 | 2.0 | 2.4 | 20 | 3.1 | 645 | 1.1 | .43 | .05 |
| 10 | .17 | 36 | 1.5 | 15 | 2.0 | 2.5 | 11 | 2.9 | 50 | .79 | .32 | .09 |
| 11 | .73 | 2.6 | 1.3 | 5.0 | 2.0 | 2.5 | 10 | 2.6 | 21 | .33 | .23 | .08 |
| 12 | .30 | 1.6 | 1.2 | 2.5 | 1.8 | 2.9 | 9.2 | 2.5 | 18 | .30 | .03 | .07 |
| 13 | .11 | 1.5 | 1.0 | 1.8 | 1.8 | 2.7 | 6.3 | 2.3 | 17 | .54 | .02 | .06 |
| 14 | .09 | 1.2 | .95 | 1.5 | 2.0 | 3.7 | 6.1 | 1.9 | 13 | .56 | .05 | .15 |
| 15 | .12 | 1.1 | .90 | 1.3 | 4.7 | 3.1 | 6.0 | 1.9 | 672 | .47 | .10 | .08 |
| 16 | .08 | 1.0 | .85 | 1.2 | 20 | 2.9 | 5.1 | 1.9 | 18 | .47 | .13 | .06 |
| 17 | .08 | 1.0 | .80 | 1.1 | 7.0 | 34 | 5.0 | 1.7 | 5.6 | .88 | .13 | .06 |
| 18 | .08 | 1.0 | .75 | 1.1 | 25 | 8.8 | 4.4 | 1.5 | 4.2 | .57 | .14 | .04 |
| 19 | 1.2 | 1.0 | .75 | 1.1 | 8.5 | 47 | 4.2 | 4.8 | 3.8 | .50 | .11 | .04 |
| 20 | .43 | .91 | .75 | 1.1 | 5.3 | 35 | 5.1 | 4.4 | 29 | .52 | .11 | .04 |
| 21 | 2.9 | .86 | .75 | 1.1 | 4.6 | 80 | 114 | 2.1 | 395 | .51 | .29 | .04 |
| 22 | 1.9 | .87 | .75 | 1.1 | 4.1 | 119 | 37 | 3.4 | 15 | .47 | .24 | .03 |
| 23 | .74 | 1.0 | .75 | 1.1 | 3.5 | 52 | 10 | 2.4 | 8.3 | .38 | .04 | .05 |
| 24 | .42 | 1.0 | .75 | 1.5 | 3.2 | 179 | 7.7 | 1.5 | 4.6 | .37 | .11 | .05 |
| 25 | .36 | 1.0 | .80 | 2.5 | 3.1 | 27 | 6.6 | 2.1 | 3.7 | .33 | .10 | .01 |
| 26 | .33 | 1.2 | .90 | 8.0 | 3.5 | 92 | 25 | 1.5 | 3.1 | .34 | .09 | .01 |
| 27 | .31 | 120 | .95 | 17 | 4.0 | 32 | 87 | 1.6 | 2.6 | .34 | .08 | .07 |
| 28 | .26 | 20 | .95 | 20 | 3.7 | 26 | 9.5 | 1.7 | 36 | .36 | .08 | .07 |
| 29 | .36 | 4.1 | .85 | 25 | 3.3 | 12 | 451 | 1.3 | 25 | .34 | .05 | .06 |
| 30 | 2.2 | 2.5 | .75 | 20 | --- | 8.7 | 21 | 1.1 | 2.9 | .34 | .04 | .06 |
| 31 | .89 | --- | .75 | 6.0 | --- | 7.7 | --- | 1.1 | --- | .34 | .04 | --- |
| TOTAL | 14.76 | 285.78 | 35.20 | 195.90 | 134.2 | 808.3 | 1507.8 | 97.0 | 2521.60 | 90.45 | 6.54 | 1.56 |
| MEAN | .48 | 9.53 | 1.14 | 6.32 | 4.63 | 26.1 | 53.6 | 3.13 | 84.1 | 2.92 | .21 | .052 |
| MAX | 2.9 | 120 | 2.2 | 25 | 25 | 179 | 451 | 8.7 | 672 | 43 | 1.1 | .15 |
| MIN | .00 | .60 | .75 | .80 | 1.5 | 2.4 | 4.2 | 1.1 | .69 | .30 | .02 | .01 |
| AC-FT | 29 | 567 | 70 | 389 | 266 | 1600 | 3190 | 192 | 5000 | 179 | 13 | 3.1 |

CAL YR 1983 TOTAL 3207.65 MEAN 8.79 MAX 357 MIN .00 AC-FT 6360
WTR YR 1984 TOTAL 5799.09 MEAN 15.8 MAX 672 MIN .00 AC-FT 11500

## 06889140 SOLDIER CREEK NEAR SOLDIER, KS

**LOCATION.**--Lat 39 deg 33 min 57 sec, long 95 deg 57 min 45 sec, in NW1/4 NE1/4 NE1/4 sec.4, T.6 S., R.13 E., Jackson County, Hydrologic Unit 10270102, at downstream side of highway bridge, 2.0 mi north of Soldier, and at mile 65.7.

**DRAINAGE AREA.**--16.9 sq mi.

**PERIOD OF RECORD.**--March 1964 to current year.

**GAGE.**--Water-stage recorder. Datum of gage is 1,206.02 ft National Geodetic Vertical Datum of 1929.

**REMARKS.**--Records good except those for winter period, which are poor.

**AVERAGE DISCHARGE.**--20 years, 10.7 cu ft per sec, 7,750 acre-ft per yr.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 11,700 cu ft per sec May 10, 1970, gage height, 16.46 ft, from rating curve extended above 1,200 cu ft per sec on basis of contracted-opening measurement of peak flow; no flow at times in 1966-68, 1972.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges above base of 600 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 24 | 1145 | 655 | 4.85 | June 7 | 2345 | 7,010 | 14.01 |
| Apr. 2 | 1430 | 864 | 5.47 | June 9 | 0945 | *8,660 | 15.31 |
| Apr. 3 | 1715 | 2,300 | 8.20 | June 15 | 0530 | 4,880 | 11.76 |
| Apr. 27 | 0145 | 697 | 4.99 | June 15 | 1400 | 1,440 | 6.76 |
| Apr. 29 | 1415 | 3,910 | 10.61 | June 21 | 0945 | 2,750 | 8.95 |
| June 7 | 0200 | 763 | 5.18 | | | | |

Minimum discharge, 0.18 cu ft per sec Aug. 29, 30.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.2 | .93 | 3.6 | 1.2 | 8.6 | 2.8 | 7.3 | 23 | 1.6 | 4.1 | .55 | .20 |
| 2 | 1.0 | .78 | 3.6 | 1.6 | 7.0 | 2.9 | 261 | 18 | 1.6 | 3.8 | .48 | .21 |
| 3 | .85 | 8.6 | 3.0 | 2.1 | 5.4 | 3.8 | 587 | 16 | 1.2 | 3.5 | .55 | .22 |
| 4 | .92 | 3.1 | 3.3 | 2.1 | 4.0 | 4.9 | 117 | 12 | 1.2 | 23 | .47 | .22 |
| 5 | 1.0 | .44 | 3.3 | 2.3 | 3.0 | 3.3 | 17 | 9.6 | 1.2 | 5.1 | .47 | .22 |
| 6 | .92 | .25 | 2.8 | 3.5 | 2.3 | 2.4 | 11 | 8.7 | .92 | 3.9 | .39 | .25 |
| 7 | 1.0 | .34 | 3.1 | 8.0 | 2.6 | 2.5 | 30 | 8.5 | 711 | 14 | .35 | .25 |
| 8 | 1.4 | .28 | 2.5 | 20 | 3.0 | 2.3 | 245 | 6.9 | 675 | 6.2 | 2.0 | .22 |
| 9 | 1.4 | 169 | 2.4 | 22 | 3.5 | 1.6 | 30 | 6.3 | 1920 | 3.2 | .83 | .24 |
| 10 | 1.4 | 83 | 2.0 | 21 | 3.5 | 2.1 | 14 | 5.9 | 61 | 2.3 | .85 | .25 |
| 11 | 3.2 | 7.8 | 2.3 | 5.0 | 3.4 | 2.1 | 12 | 5.3 | 19 | 1.9 | .82 | .25 |
| 12 | 2.1 | 4.3 | 2.1 | 3.1 | 3.7 | 2.2 | 13 | 4.9 | 14 | 1.7 | .73 | .25 |
| 13 | .75 | 3.9 | 1.9 | 2.5 | 2.8 | 2.8 | 7.1 | 4.8 | 13 | 1.5 | .70 | .22 |
| 14 | .70 | 3.0 | 1.7 | 2.2 | 2.3 | 4.5 | 6.3 | 3.8 | 10 | 1.4 | .73 | .22 |
| 15 | .63 | 2.2 | 1.6 | 2.0 | 3.5 | 3.9 | 5.9 | 3.5 | 1010 | 1.2 | .62 | .27 |
| 16 | .71 | 1.7 | 1.5 | 1.9 | 35 | 5.3 | 5.8 | 3.7 | 27 | 1.2 | .55 | .33 |
| 17 | .65 | 1.8 | 1.4 | 1.7 | 7.8 | 82 | 4.3 | 3.2 | 12 | 2.4 | .47 | .33 |
| 18 | .63 | 1.9 | 1.3 | 1.6 | 44 | 12 | 3.7 | 2.8 | 8.9 | 1.9 | .47 | .31 |
| 19 | 3.6 | 1.9 | 1.2 | 1.6 | 12 | 24 | 3.3 | 9.6 | 7.4 | 1.2 | .42 | .25 |
| 20 | .90 | 1.7 | 1.2 | 1.6 | 5.5 | 22 | 3.9 | 11 | 15 | .94 | .40 | .24 |
| 21 | 4.0 | 1.4 | 1.2 | 1.6 | 4.7 | 173 | 196 | 4.2 | 447 | .93 | .61 | .25 |
| 22 | 3.6 | 1.3 | 1.2 | 1.6 | 4.2 | 198 | 56 | 7.8 | 15 | .92 | .74 | .25 |
| 23 | 1.2 | 1.7 | 1.2 | 1.6 | 3.5 | 71 | 13 | 5.6 | 18 | .81 | .63 | .25 |
| 24 | .63 | 1.7 | 1.2 | 1.6 | 3.0 | 289 | 7.6 | 3.3 | 7.5 | .78 | .54 | .25 |
| 25 | .55 | 1.8 | 1.2 | 1.8 | 2.8 | 38 | 5.9 | 3.7 | 6.2 | .78 | .47 | .24 |
| 26 | .54 | 2.7 | 1.5 | 6.0 | 3.1 | 155 | 29 | 3.1 | 5.3 | .81 | .40 | .24 |
| 27 | .55 | 269 | 1.6 | 16 | 4.0 | 46 | 140 | 2.8 | 4.8 | .60 | .26 | .28 |
| 28 | .63 | 53 | 1.6 | 30 | 3.1 | 39 | 7.4 | 3.3 | 16 | .71 | .20 | .28 |
| 29 | .70 | 8.1 | 1.3 | 40 | 2.4 | 16 | 923 | 2.5 | 24 | .70 | .18 | .27 |
| 30 | 4.6 | 5.1 | 1.2 | 20 | --- | 9.8 | 61 | 1.9 | 5.1 | .69 | .19 | .25 |
| 31 | 1.7 | --- | 1.2 | 12 | --- | 8.1 | --- | 1.9 | --- | .56 | .20 | --- |
| TOTAL | 43.66 | 642.72 | 60.2 | 239.2 | 193.7 | 1232.3 | 2923.5 | 207.6 | 5059.92 | 92.93 | 17.27 | 7.51 |
| MEAN | 1.41 | 21.4 | 1.94 | 7.72 | 6.68 | 39.8 | 94.1 | 6.70 | 169 | 3.00 | .56 | .25 |
| MAX | 4.6 | 269 | 3.6 | 40 | 44 | 289 | 923 | 23 | 1920 | 23 | 2.0 | .33 |
| MIN | .54 | .25 | 1.2 | 1.2 | 2.3 | 1.6 | 3.3 | 1.9 | .92 | .56 | .18 | .20 |
| AC-FT | 87 | 1270 | 119 | 474 | 384 | 2440 | 5600 | 412 | 10040 | 184 | 34 | 15 |

CAL YR 1983 TOTAL 5942.42 MEAN 16.3 MAX 713 MIN .18 AC-FT 11790
WTR YR 1984 TOTAL 10620.51 MEAN 29.0 MAX 1920 MIN .18 AC-FT 21070

## 06889160 SOLDIER CREEK NEAR CIRCLEVILLE, KS

LOCATION.--Lat 39 deg 27 min 47 sec, long 95 deg 57 min 00 sec, in NW1/4 NW1/4 NE1/4 sec.10, T.7 S., R.13 E., Jackson County, Hydrologic Unit 10270102, 160 ft downstream from bridge on State Highway 16, 5.8 mi southeast of Circleville, and at mile 55.2.

DRAINAGE AREA.--49.3 sq mi.

PERIOD OF RECORD.--March 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,094.58 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--20 years, 34.5 cu ft per sec, 25,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,300 cu ft per sec June 9, 1984, gage height, 21.52 ft from rating curve extended above 4,000 cu ft per sec on basis of contracted-opening measurement of peak flow; minimum, 0.06 cu ft per sec Oct. 1, 1980, Sept. 6, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 21 | 1915 | 1,770 | 9.81 | Apr. 29 | 1700 | 5,180 | 18.38 |
| Mar. 24 | 1300 | 1,400 | 8.81 | June 7 | 0400 | 3,660 | 15.31 |
| Apr. 2 | 1645 | 1,680 | 9.57 | June 8 | 0415 | 7,030 | 19.01 |
| Apr. 3 | 2000 | 3,550 | 15.00 | June 9 | 1115 | *25,300 | 21.52 |
| Apr. 8 | 1145 | 1,310 | 8.56 | June 15 | 1000 | 3,780 | 15.61 |
| Apr. 21 | 0700 | 1,220 | 8.29 | June 21 | 1230 | 5,120 | 18.32 |

Minimum discharge, 0.55 cu ft per sec Sept. 25, 26.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .87 | 12 | 12 | 3.5 | 21 | 13 | 33 | 99 | 6.4 | 12 | 2.8 | .91 |
| 2 | .91 | 9.3 | 9.5 | 4.0 | 22 | 13 | 565 | 72 | 5.5 | 11 | 2.6 | 1.4 |
| 3 | .91 | 8.3 | 9.0 | 5.0 | 18 | 12 | 1380 | 56 | 5.3 | 10 | 2.6 | 2.5 |
| 4 | 1.2 | 25 | 8.2 | 6.7 | 18 | 17 | 469 | 49 | 5.1 | 29 | 2.6 | 1.4 |
| 5 | 1.2 | 10 | 7.8 | 6.2 | 16 | 15 | 102 | 39 | 4.8 | 18 | 3.0 | 1.2 |
| 6 | 1.1 | 8.9 | 7.5 | 9.0 | 14 | 12 | 70 | 38 | 4.2 | 14 | 2.6 | 1.4 |
| 7 | 1.0 | 8.6 | 7.0 | 25 | 12 | 11 | 93 | 35 | 991 | 20 | 2.4 | 1.4 |
| 8 | .94 | 8.2 | 6.8 | 45 | 11 | 11 | 820 | 30 | 1860 | 28 | 2.6 | .96 |
| 9 | .95 | 168 | 5.6 | 60 | 11 | 10 | 142 | 26 | 5830 | 11 | 4.3 | .85 |
| 10 | 1.7 | 212 | 4.8 | 50 | 10 | 10 | 74 | 24 | 258 | 8.3 | 3.4 | .82 |
| 11 | 7.0 | 20 | 5.0 | 30 | 10 | 10 | 63 | 21 | 93 | 7.6 | 3.0 | .80 |
| 12 | 5.3 | 10 | 4.5 | 17 | 10 | 11 | 63 | 19 | 67 | 6.6 | 3.0 | .92 |
| 13 | 2.8 | 7.6 | 4.5 | 11 | 9.0 | 12 | 46 | 17 | 75 | 6.3 | 2.7 | .94 |
| 14 | 2.1 | 6.3 | 4.0 | 8.8 | 7.6 | 13 | 41 | 14 | 51 | 6.4 | 2.4 | 3.6 |
| 15 | 1.6 | 5.1 | 4.0 | 8.0 | 8.1 | 13 | 39 | 13 | 1550 | 5.6 | 2.1 | 1.8 |
| 16 | 1.2 | 4.3 | 3.5 | 7.0 | 62 | 12 | 38 | 14 | 139 | 5.3 | 2.0 | 1.3 |
| 17 | 1.2 | 4.1 | 3.0 | 6.0 | 26 | 299 | 34 | 12 | 96 | 7.6 | 1.8 | 1.1 |
| 18 | 1.2 | 4.1 | 3.0 | 5.0 | 71 | 85 | 30 | 11 | 45 | 5.9 | 1.7 | 1.1 |
| 19 | 3.1 | 3.9 | 3.0 | 5.0 | 42 | 155 | 27 | 16 | 32 | 5.5 | 1.7 | 1.1 |
| 20 | 6.2 | 3.7 | 3.0 | 5.0 | 23 | 133 | 27 | 33 | 133 | 5.6 | 1.8 | .88 |
| 21 | 3.6 | 3.5 | 3.0 | 5.0 | 20 | 659 | 485 | 15 | 1380 | 4.6 | 2.3 | .81 |
| 22 | 6.6 | 3.5 | 3.0 | 5.5 | 18 | 472 | 239 | 23 | 105 | 4.5 | 2.3 | .80 |
| 23 | 5.4 | 3.7 | 3.0 | 6.0 | 16 | 210 | 68 | 20 | 62 | 4.2 | 1.9 | .85 |
| 24 | 3.5 | 3.8 | 3.0 | 7.0 | 15 | 701 | 46 | 12 | 33 | 4.3 | 1.8 | .82 |
| 25 | 3.2 | 3.5 | 3.0 | 8.8 | 13 | 172 | 39 | 11 | 22 | 4.2 | 1.6 | .67 |
| 26 | 3.1 | 3.7 | 3.0 | 12 | 14 | 440 | 45 | 9.8 | 17 | 4.4 | 1.6 | .56 |
| 27 | 4.6 | 565 | 3.5 | 40 | 16 | 184 | 390 | 10 | 14 | 3.9 | 1.5 | .77 |
| 28 | 6.7 | 143 | 3.5 | 26 | 14 | 110 | 53 | 11 | 14 | 3.7 | 1.3 | 1.4 |
| 29 | 6.9 | 27 | 3.0 | 80 | 13 | 63 | 1720 | 8.6 | 60 | 3.7 | 1.2 | 1.3 |
| 30 | 13 | 15 | 3.0 | 35 | --- | 44 | 271 | 7.6 | 17 | 3.3 | 1.0 | 1.1 |
| 31 | 15 | --- | 3.0 | 26 | --- | 37 | --- | 7.0 | --- | 2.8 | 1.0 | --- |
| TOTAL | 114.25 | 1311.1 | 149.7 | 568.5 | 560.7 | 3959 | 7512 | 773.0 | 12975.3 | 267.3 | 68.6 | 35.46 |
| MEAN | 3.69 | 43.7 | 4.83 | 18.3 | 19.3 | 128 | 250 | 24.9 | 433 | 8.62 | 2.21 | 1.18 |
| MAX | 15 | 565 | 12 | 80 | 71 | 701 | 1720 | 99 | 5830 | 29 | 4.3 | 3.6 |
| MIN | .87 | 3.5 | 3.0 | 3.5 | 7.6 | 10 | 27 | 7.0 | 4.2 | 2.8 | 1.0 | .56 |
| AC-FT | 227 | 2600 | 297 | 1130 | 1110 | 7850 | 14900 | 1530 | 25740 | 530 | 136 | 70 |

CAL YR 1983 TOTAL 17766.87 MEAN 48.7 MAX 2070 MIN .58 AC-FT 35240
WTR YR 1984 TOTAL 28294.94 MEAN 77.3 MAX 5830 MIN .56 AC-FT 56120

## 06889200 SOLDIER CREEK NEAR DELIA, KS

LOCATION.--Lat 39 deg 12 min 08 sec, long 95 deg 52 min 25 sec, in NE1/4 SW1/4 NE1/4 sec.8, T.10 S., R.14 E., Shawnee County, Hydrologic Unit 10270102, at upstream side of highway bridge, 5.1 mi upstream from Walnut Creek, 5.5 mi southeast of Delia, and at mile 21.9.

DRAINAGE AREA.--157 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 931.34 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--26 years, 99.0 cu ft per sec, 71,730 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 cu ft per sec June 9, 1982, gage height, 23.95 ft; no flow Sept. 10-12, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1909, about 24 ft June 21, 1951, from floodmarks and information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 cu ft per sec (revised) and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 22 | 0800 | 2,390 | 14.36 | June 8 | 2400 | 3,350 | 17.68 |
| Apr. 4 | 1200 | 2,700 | 15.47 | June 10 | 0400 | *16,700 | 22.81 |
| Apr. 8 | 2000 | 2,540 | 14.92 | June 16 | 0800 | 3,790 | 18.98 |
| Apr. 30 | 1300 | 5,530 | 20.49 | June 22 | 0300 | 7,200 | 21.24 |

Minimum discharge, 1.2 cu ft per sec Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.2 | 15 | 45 | 12 | 71 | 30 | 127 | 447 | 38 | 104 | 11 | 4.1 |
| 2 | 1.9 | 39 | 52 | 14 | 63 | 29 | 436 | 326 | 33 | 83 | 12 | 4.4 |
| 3 | 1.7 | 32 | 38 | 18 | 55 | 28 | 1680 | 279 | 30 | 70 | 11 | 4.7 |
| 4 | 1.7 | 19 | 41 | 22 | 46 | 35 | 1780 | 235 | 29 | 64 | 10 | 4.9 |
| 5 | 1.5 | 14 | 37 | 26 | 37 | 40 | 375 | 200 | 29 | 86 | 11 | 5.2 |
| 6 | 2.0 | 20 | 33 | 36 | 23 | 32 | 244 | 184 | 26 | 87 | 28 | 5.2 |
| 7 | 1.5 | 13 | 31 | 55 | 30 | 30 | 213 | 182 | 880 | 81 | 13 | 4.0 |
| 8 | 1.5 | 11 | 30 | 70 | 28 | 27 | 1650 | 141 | 1860 | 77 | 11 | 4.4 |
| 9 | 1.6 | 20 | 29 | 80 | 31 | 25 | 1020 | 120 | 1730 | 77 | 9.7 | 4.3 |
| 10 | 1.8 | 496 | 29 | 75 | 30 | 25 | 340 | 110 | 7250 | 43 | 9.8 | 4.3 |
| 11 | 4.4 | 157 | 27 | 71 | 31 | 26 | 284 | 100 | 367 | 37 | 9.9 | 4.5 |
| 12 | 17 | 39 | 25 | 53 | 29 | 26 | 370 | 88 | 236 | 33 | 9.0 | 4.1 |
| 13 | 15 | 26 | 22 | 41 | 27 | 29 | 220 | 82 | 202 | 30 | 8.4 | 4.8 |
| 14 | 8.8 | 21 | 20 | 30 | 25 | 30 | 171 | 70 | 184 | 28 | 8.2 | 14 |
| 15 | 5.9 | 18 | 20 | 26 | 23 | 32 | 151 | 63 | 607 | 26 | 8.1 | 18 |
| 16 | 4.8 | 15 | 18 | 22 | 108 | 31 | 139 | 61 | 2250 | 22 | 7.7 | 12 |
| 17 | 3.8 | 14 | 16 | 19 | 136 | 434 | 118 | 57 | 300 | 24 | 7.3 | 7.3 |
| 18 | 3.7 | 14 | 13 | 16 | 63 | 438 | 102 | 52 | 310 | 28 | 7.0 | 6.1 |
| 19 | 7.5 | 14 | 10 | 15 | 129 | 768 | 92 | 106 | 177 | 22 | 6.8 | 5.8 |
| 20 | 14 | 14 | 10 | 15 | 65 | 430 | 85 | 239 | 142 | 19 | 6.5 | 5.7 |
| 21 | 20 | 14 | 10 | 15 | 44 | 1130 | 529 | 98 | 2690 | 17 | 7.2 | 4.9 |
| 22 | 16 | 13 | 10 | 16 | 40 | 1630 | 679 | 64 | 4060 | 16 | 8.3 | 4.7 |
| 23 | 15 | 14 | 10 | 19 | 37 | 572 | 330 | 81 | 395 | 15 | 8.7 | 4.3 |
| 24 | 11 | 15 | 10 | 22 | 34 | 1000 | 192 | 62 | 275 | 15 | 7.5 | 4.1 |
| 25 | 9.4 | 15 | 10 | 28 | 31 | 963 | 144 | 50 | 200 | 15 | 6.9 | 3.8 |
| 26 | 7.4 | 15 | 10 | 42 | 31 | 719 | 127 | 47 | 158 | 14 | 6.4 | 3.5 |
| 27 | 6.5 | 536 | 12 | 75 | 33 | 912 | 881 | 164 | 289 | 13 | 6.1 | 4.3 |
| 28 | 5.1 | 1110 | 12 | 129 | 32 | 330 | 263 | 149 | 155 | 13 | 6.0 | 4.5 |
| 29 | 4.7 | 190 | 10 | 156 | 27 | 262 | 1110 | 62 | 401 | 13 | 5.5 | 5.4 |
| 30 | 6.3 | 77 | 10 | 236 | --- | 184 | 3610 | 48 | 198 | 13 | 4.9 | 4.9 |
| 31 | 19 | --- | 10 | 158 | --- | 145 | --- | 42 | --- | 12 | 4.6 | --- |
| TOTAL | 222.7 | 3010 | 660 | 1612 | 1359 | 10392 | 17462 | 4009 | 25501 | 1195 | 277.5 | 172.2 |
| MEAN | 7.18 | 100 | 21.3 | 52.0 | 46.9 | 335 | 582 | 129 | 850 | 38.5 | 8.95 | 5.74 |
| MAX | 20 | 1110 | 52 | 236 | 136 | 1630 | 3610 | 447 | 7250 | 104 | 28 | 18 |
| MIN | 1.5 | 11 | 10 | 12 | 23 | 25 | 85 | 42 | 26 | 12 | 4.6 | 3.5 |
| AC-FT | 442 | 5970 | 1310 | 3200 | 2700 | 20610 | 34640 | 7950 | 50580 | 2370 | 550 | 342 |

CAL YR 1983 TOTAL 51858.5 MEAN 142 MAX 3170 MIN 1.5 AC-FT 102900
WTR YR 1984 TOTAL 65872.4 MEAN 180 MAX 7250 MIN 1.5 AC-FT 130700

### 06889500 SOLDIER CREEK NEAR TOPEKA, KS

LOCATION.--Lat 39 deg 06 min 00 sec, long 95 deg 43 min 27 sec, in SW1/4 NW1/4 NW1/4 sec.14, T.11 S., R.15 E., Shawnee County, Hydrologic Unit 10270102, at downstream side of highway bridge, 1.5 mi upstream from Halfday Creek, 4.0 mi northwest of Topeka, and at mile 6.0.

DRAINAGE AREA.--290 sq mi.

PERIOD OF RECORD.--May 1929 to September 1932, August 1935 to current year. Prior to October 1935, published as "at Topeka." Records for October 1932 to July 1935, published in WSP 746, 761, and 786, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1440: 1929-30(M), 1941-42, 1948(P), 1950. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 862.95 ft National Geodetic Vertical Datum of 1929. Prior to July 27, 1935, chain gage at site 2.0 mi downstream at different datum. Aug. 1, 1935, to June 16, 1958, nonrecording gage and June 17, 1958, to May 24, 1960, water-stage recorder, at present site and datum 4.0 ft higher. May 25, 1960, to June 8, 1961, nonrecording gage at site 1.1 mi downstream at datum 1.79 ft lower.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--52 years, (water years 1930-32, 1936-84), 147 cu ft per sec, 106,500 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,400 cu ft per sec June 9, 1982, gage height, 27.44 ft, maximum gage height, 33.06 ft July 12, 1951, present datum, from floodmark, backwater from Kansas River; no flow at times in 1931, 1935-40, 1953-57, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 22 | 0400 | 3,250 | 9.18 | June 10 | 1300 | *9,390 | 16.34 |
| Apr. 3 | 1100 | 3,150 | 9.03 | June 16 | 1200 | 3,960 | 10.20 |
| Apr. 8 | 2200 | 4,110 | 10.40 | June 21 | 1800 | 8,790 | 15.75 |
| Apr. 30 | 2000 | 5,530 | 12.21 | | | | |

Minimum discharge, 2.6 cu ft per sec Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.6 | 34 | 92 | 25 | 150 | 50 | 241 | 1120 | 111 | 149 | 27 | 11 |
| 2 | 4.6 | 55 | 86 | 30 | 137 | 52 | 534 | 501 | 88 | 126 | 27 | 12 |
| 3 | 4.0 | 82 | 82 | 35 | 115 | 49 | 2570 | 411 | 78 | 110 | 25 | 11 |
| 4 | 3.8 | 105 | 83 | 40 | 95 | 85 | 2130 | 327 | 75 | 99 | 24 | 11 |
| 5 | 4.0 | 37 | 80 | 50 | 79 | 100 | 763 | 274 | 73 | 92 | 23 | 11 |
| 6 | 4.0 | 29 | 66 | 60 | 70 | 71 | 400 | 247 | 69 | 118 | 30 | 11 |
| 7 | 3.9 | 31 | 60 | 75 | 60 | 59 | 343 | 245 | 634 | 167 | 32 | 10 |
| 8 | 3.0 | 24 | 63 | 90 | 53 | 53 | 2380 | 213 | 1590 | 115 | 22 | 14 |
| 9 | 3.3 | 25 | 62 | 100 | 52 | 46 | 2270 | 192 | 1940 | 110 | 22 | 16 |
| 10 | 3.3 | 422 | 57 | 100 | 56 | 46 | 695 | 182 | 6320 | 76 | 21 | 13 |
| 11 | 16 | 320 | 54 | 90 | 55 | 47 | 491 | 172 | 700 | 62 | 21 | 12 |
| 12 | 18 | 97 | 53 | 80 | 53 | 49 | 887 | 162 | 315 | 59 | 20 | 11 |
| 13 | 27 | 63 | 49 | 70 | 48 | 51 | 432 | 154 | 254 | 56 | 19 | 11 |
| 14 | 20 | 51 | 45 | 60 | 41 | 56 | 308 | 144 | 236 | 52 | 19 | 47 |
| 15 | 14 | 44 | 40 | 50 | 40 | 55 | 269 | 136 | 209 | 49 | 19 | 36 |
| 16 | 10 | 39 | 35 | 40 | 175 | 57 | 249 | 133 | 2700 | 45 | 18 | 28 |
| 17 | 7.3 | 37 | 30 | 35 | 235 | 500 | 222 | 128 | 392 | 43 | 17 | 19 |
| 18 | 5.7 | 35 | 25 | 30 | 156 | 848 | 198 | 118 | 296 | 50 | 17 | 16 |
| 19 | 41 | 34 | 20 | 30 | 177 | 1760 | 183 | 169 | 205 | 44 | 17 | 15 |
| 20 | 48 | 32 | 20 | 30 | 158 | 897 | 180 | 468 | 165 | 41 | 16 | 14 |
| 21 | 36 | 31 | 20 | 30 | 105 | 1950 | 446 | 204 | 4650 | 39 | 18 | 13 |
| 22 | 59 | 28 | 20 | 35 | 86 | 2640 | 1140 | 150 | 5960 | 36 | 18 | 13 |
| 23 | 33 | 31 | 20 | 40 | 75 | 900 | 643 | 147 | 689 | 35 | 17 | 13 |
| 24 | 24 | 31 | 20 | 45 | 63 | 1630 | 335 | 139 | 372 | 34 | 17 | 12 |
| 25 | 19 | 32 | 20 | 55 | 56 | 1730 | 265 | 117 | 259 | 32 | 17 | 11 |
| 26 | 16 | 36 | 20 | 70 | 58 | 1580 | 232 | 112 | 205 | 31 | 15 | 10 |
| 27 | 14 | 904 | 25 | 85 | 64 | 1850 | 975 | 677 | 749 | 31 | 15 | 11 |
| 28 | 11 | 1650 | 25 | 105 | 62 | 681 | 594 | 431 | 241 | 31 | 15 | 12 |
| 29 | 9.1 | 308 | 20 | 120 | 50 | 474 | 995 | 186 | 634 | 29 | 13 | 12 |
| 30 | 24 | 136 | 20 | 140 | --- | 338 | 5060 | 143 | 249 | 29 | 13 | 12 |
| 31 | 31 | --- | 20 | 150 | --- | 272 | --- | 123 | --- | 29 | 12 | --- |
| TOTAL | 521.6 | 4783 | 1332 | 1995 | 2624 | 18974 | 26430 | 7945 | 30458 | 2022 | 606 | 446 |
| MEAN | 16.8 | 159 | 43.0 | 64.4 | 90.5 | 612 | 881 | 256 | 1015 | 65.2 | 19.5 | 14.9 |
| MAX | 59 | 1650 | 92 | 150 | 235 | 2640 | 5060 | 1120 | 6320 | 167 | 32 | 47 |
| MIN | 3.0 | 24 | 20 | 25 | 40 | 46 | 160 | 112 | 69 | 29 | 12 | 10 |
| AC-FT | 1030 | 9490 | 2640 | 3960 | 5200 | 37630 | 52420 | 15760 | 60410 | 4010 | 1200 | 885 |

CAL YR 1983 TOTAL 86860.7 MEAN 238 MAX 4570 MIN 3.0 AC-FT 172300
WTR YR 1984 TOTAL 98136.4 MEAN 268 MAX 6320 MIN 3.0 AC-FT 194700

## 06890100 DELAWARE RIVER NEAR MUSCOTAH, KS

LOCATION.--Lat 39 deg 31 min 17 sec, long 95 deg 31 min 57 sec, in SW1/4 SW1/4 SW1/4 sec.16, T.6 S., R.17 E., Atchison County, Hydrologic Unit 10270103, 2.0 mi south of Muscotah, and at mile 45.5.

DRAINAGE AREA.--431 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements water years 1964-67. July 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 920.88 ft National Geodetic Vertical Datum of 1929 (Kansas Geological Survey bench mark).

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--15 years, 293 cu ft per sec, 212,300 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 cu ft per sec Sept. 13, 1977, gage height, 30.83 ft; minimum, 0.38 cu ft per sec Sept. 7, 8, 11, 12, 1976, May 12, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1925 reached a stage of 36.5 ft, from information by local residents (discharge not determined). Floods in 1951 and 1967 were lower than the flood of 1925.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Nov. 27 | 2100 | 6,940 | 18.87 | Apr. 30 | 1400 | 9,960 | 23.27 |
| Mar. 21 | 2300 | 6,070 | 17.51 | June 9 | 2000 | *23,000 | 29.87 |
| Mar. 26 | 1800 | 7,070 | 19.08 | June 15 | 1800 | 14,500 | 27.66 |
| Apr. 3 | 0200 | 7,410 | 19.59 | June 21 | 1400 | 6,760 | 19.83 |
| Apr. 8 | 1800 | 5,660 | 16.85 | July 4 | 1600 | 5,380 | 17.87 |
| Apr. 27 | 0900 | 5,300 | 16.26 | | | | |

Minimum discharge, 4.9 cu ft per sec Oct. 6-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.5 | 39 | 90 | 60 | 250 | 102 | 314 | 1160 | 119 | 223 | 33 | 13 |
| 2 | 5.4 | 69 | 110 | 65 | 200 | 100 | 2440 | 785 | 108 | 187 | 30 | 14 |
| 3 | 5.4 | 211 | 101 | 55 | 170 | 95 | 6230 | 606 | 99 | 159 | 29 | 16 |
| 4 | 5.2 | 463 | 120 | 53 | 130 | 128 | 4280 | 505 | 95 | 2850 | 28 | 18 |
| 5 | 5.2 | 120 | 100 | 57 | 100 | 153 | 1160 | 377 | 94 | 1270 | 30 | 16 |
| 6 | 5.0 | 61 | 88 | 70 | 85 | 121 | 684 | 330 | 85 | 318 | 35 | 14 |
| 7 | 4.9 | 51 | 88 | 90 | 80 | 108 | 678 | 325 | 3780 | 208 | 30 | 12 |
| 8 | 4.9 | 54 | 92 | 150 | 80 | 92 | 3800 | 263 | 17800 | 189 | 83 | 12 |
| 9 | 4.9 | 416 | 82 | 400 | 85 | 82 | 2400 | 226 | 13000 | 153 | 74 | 12 |
| 10 | 6.2 | 2080 | 78 | 300 | 95 | 93 | 910 | 207 | 11300 | 128 | 48 | 13 |
| 11 | 41 | 363 | 76 | 200 | 105 | 104 | 667 | 192 | 2070 | 122 | 37 | 13 |
| 12 | 69 | 154 | 76 | 170 | 117 | 95 | 923 | 177 | 1420 | 118 | 31 | 13 |
| 13 | 36 | 113 | 68 | 140 | 99 | 122 | 561 | 172 | 1570 | 103 | 29 | 15 |
| 14 | 17 | 93 | 64 | 120 | 86 | 146 | 400 | 151 | 1060 | 95 | 30 | 22 |
| 15 | 11 | 72 | 60 | 110 | 82 | 170 | 352 | 139 | 9140 | 86 | 27 | 20 |
| 16 | 9.0 | 56 | 55 | 102 | 310 | 150 | 322 | 212 | 6330 | 79 | 23 | 15 |
| 17 | 8.1 | 50 | 50 | 100 | 247 | 1630 | 276 | 161 | 1190 | 98 | 20 | 13 |
| 18 | 8.6 | 46 | 45 | 98 | 271 | 776 | 236 | 129 | 784 | 91 | 19 | 13 |
| 19 | 15 | 43 | 39 | 97 | 501 | 1100 | 215 | 176 | 502 | 75 | 19 | 12 |
| 20 | 27 | 40 | 36 | 97 | 221 | 702 | 202 | 1860 | 483 | 67 | 19 | 12 |
| 21 | 36 | 35 | 34 | 98 | 164 | 2290 | 2070 | 372 | 4450 | 63 | 22 | 11 |
| 22 | 152 | 33 | 33 | 100 | 146 | 3300 | 2630 | 391 | 1610 | 59 | 27 | 11 |
| 23 | 71 | 46 | 33 | 108 | 131 | 2190 | 1010 | 758 | 478 | 52 | 25 | 11 |
| 24 | 31 | 41 | 33 | 115 | 114 | 4090 | 539 | 250 | 360 | 48 | 21 | 10 |
| 25 | 22 | 39 | 35 | 125 | 103 | 2200 | 392 | 212 | 272 | 46 | 20 | 10 |
| 26 | 17 | 47 | 40 | 140 | 103 | 2140 | 337 | 217 | 232 | 43 | 18 | 9.9 |
| 27 | 16 | 3300 | 46 | 200 | 125 | 1970 | 2940 | 203 | 354 | 42 | 18 | 10 |
| 28 | 14 | 2800 | 55 | 300 | 132 | 854 | 682 | 262 | 219 | 41 | 18 | 10 |
| 29 | 12 | 478 | 45 | 900 | 103 | 676 | 1960 | 175 | 2380 | 38 | 16 | 11 |
| 30 | 55 | 219 | 40 | 450 | --- | 433 | 5750 | 145 | 375 | 37 | 15 | 11 |
| 31 | 58 | --- | 55 | 300 | --- | 352 | --- | 131 | --- | 35 | 14 | --- |
| TOTAL | 778.3 | 11632 | 1966 | 5370 | 4435 | 26564 | 45360 | 11271 | 81759 | 7123 | 888 | 392.9 |
| MEAN | 25.1 | 388 | 63.4 | 173 | 153 | 857 | 1512 | 364 | 2725 | 230 | 28.6 | 13.1 |
| MAX | 152 | 3300 | 120 | 900 | 501 | 4090 | 6230 | 1860 | 17800 | 2850 | 83 | 22 |
| MIN | 4.9 | 33 | 33 | 53 | 80 | 82 | 202 | 129 | 85 | 35 | 14 | 9.9 |
| AC-FT | 1540 | 23070 | 3900 | 10650 | 8800 | 52690 | 89970 | 22360 | 162200 | 14130 | 1760 | 779 |

CAL YR 1983 TOTAL 123657.3 MEAN 339 MAX 7350 MIN 3.8 AC-FT 245300
WTR YR 1984 TOTAL 197539.2 MEAN 540 MAX 17800 MIN 4.9 AC-FT 391800

BEST COPY AVAILABLE

## 06890898 PERRY LAKE NEAR PERRY, KS

LOCATION.--Lat 39 deg 06 min 52 sec, long 95 deg 25 min 33 sec, in NE1/4 NW1/4 NW1/4 sec.9, T.11 S., R.18 E., Jefferson County, Hydrologic Unit 10270103, in control tower near center of dam on Delaware River, 4.5 mi northwest of Perry and 5.8 mi above mouth.

DRAINAGE AREA.--1,117 sq mi.

PERIOD OF RECORD.--March 1969 to current year. Prior to October 1971, published as "Perry Reservoir."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Some temporary storage occurred in Feb. 1969; dam was closed Mar. 21, 1969. Total capacity, 778,700 acre-ft, consisting of the following: Conservation pool, 225,000 acre-ft below elevation 891.5 ft; flood control pool, 517,500 acre-ft between elevations 891.5 ft and 920.6 ft; and uncontrolled storage, 36,160 acre-ft between elevations 920.6 ft and 922.0 ft. Reservoir is used to store water for flood control, irrigation, and recreation. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 917.07 ft Oct. 19, 1973, contents, 679,700 acre-ft; minimum since conservation pool was first filled, 880.01 ft May 12, 13, 1969, contents, 126,000 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 910.95 ft June 23, contents, 526,600 acre-ft; minimum, 890.24 ft Oct. 10, contents, 210,800 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Computed by Corps of Engineers on basis of resurvey made in 1979)

| | | | |
|---|---|---|---|
| 890 | 208,100 | 910 | 508,000 |
| 900 | 337,600 | 912 | 547,600 |
| 905 | 417,100 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 890.40 | 890.70 | 894.14 | 894.98 | 896.70 | 891.65 | 895.85 | 897.20 | 891.85 | 908.48 | 891.45 | 891.06 |
| 2 | 890.36 | 890.72 | 894.18 | 894.99 | 896.72 | 891.64 | 896.00 | 897.34 | 891.83 | 908.00 | 891.44 | 891.09 |
| 3 | 890.40 | 890.82 | 894.26 | 895.02 | 896.67 | 891.64 | 897.55 | 897.38 | 891.77 | 907.52 | 891.43 | 891.06 |
| 4 | 890.39 | 890.87 | 894.28 | 895.05 | 896.60 | 891.68 | 898.80 | 894.42 | 891.67 | 907.25 | 891.42 | 891.05 |
| 5 | 890.37 | 890.90 | 894.38 | 895.07 | 896.48 | 891.65 | 899.07 | 897.30 | 891.65 | 906.98 | 891.41 | 890.99 |
| 6 | 890.34 | 890.92 | 894.36 | 895.10 | 896.19 | 891.63 | 898.95 | 897.16 | 891.70 | 906.50 | 891.41 | 890.90 |
| 7 | 890.32 | 890.92 | 894.40 | 895.16 | 895.80 | 891.70 | 898.80 | 897.01 | 892.40 | 905.68 | 891.42 | 890.86 |
| 8 | 890.31 | 890.91 | 894.48 | 895.27 | 895.38 | 891.60 | 899.60 | 896.81 | 894.06 | 904.60 | 891.40 | 890.95 |
| 9 | 890.28 | 891.15 | 894.45 | 895.40 | 895.00 | 891.57 | 900.34 | 896.56 | 898.80 | 903.30 | 891.43 | 890.94 |
| 10 | 890.26 | 891.50 | 894.49 | 895.48 | 894.59 | 891.55 | 900.53 | 896.36 | 903.75 | 901.87 | 891.42 | 890.95 |
| 11 | 890.38 | 891.62 | 894.56 | 895.55 | 894.18 | 891.51 | 900.56 | 896.08 | 905.04 | 900.45 | 891.40 | 890.90 |
| 12 | 890.37 | 891.65 | 894.55 | 895.60 | 893.76 | 891.47 | 900.50 | 895.69 | 905.00 | 898.91 | 891.39 | 890.89 |
| 13 | 890.36 | 891.67 | 894.60 | 895.63 | 893.33 | 891.45 | 900.30 | 895.34 | 904.95 | 897.30 | 891.38 | 891.06 |
| 14 | 890.30 | 891.73 | 894.63 | 895.65 | 892.88 | 891.40 | 900.05 | 894.93 | 904.87 | 895.66 | 891.36 | 891.17 |
| 15 | 890.33 | 891.73 | 894.63 | 895.68 | 892.46 | 891.47 | 899.77 | 894.43 | 906.22 | 894.06 | 891.35 | 891.16 |
| 16 | 890.32 | 891.74 | 894.64 | 895.72 | 892.09 | 891.50 | 899.45 | 893.34 | 907.95 | 892.90 | 891.34 | 891.13 |
| 17 | 890.30 | 891.75 | 894.69 | 895.75 | 891.89 | 891.91 | 899.20 | 893.27 | 908.05 | 892.36 | 891.32 | 891.10 |
| 18 | 890.30 | 891.76 | 894.68 | 895.77 | 891.86 | 892.35 | 898.64 | 892.66 | 908.03 | 892.13 | 891.33 | 891.09 |
| 19 | 890.48 | 891.83 | 894.71 | 895.80 | 891.87 | 893.00 | 898.04 | 892.38 | 907.89 | 892.07 | 891.29 | 891.10 |
| 20 | 890.51 | 891.81 | 894.74 | 895.80 | 891.80 | 893.34 | 897.50 | 892.43 | 907.78 | 892.03 | 891.25 | 891.10 |
| 21 | 890.54 | 891.82 | 894.77 | 895.82 | 891.75 | 894.06 | 897.28 | 892.14 | 909.67 | 891.96 | 891.31 | 891.09 |
| 22 | 890.55 | 891.90 | 894.78 | 895.84 | 891.75 | 895.27 | 897.55 | 891.86 | 910.92 | 891.91 | 891.30 | 891.09 |
| 23 | 890.55 | 891.88 | 894.80 | 895.85 | 891.76 | 895.62 | 897.23 | 891.82 | 910.91 | 891.86 | 891.26 | 891.07 |
| 24 | 890.58 | 891.89 | 894.82 | 895.87 | 891.74 | 896.00 | 896.76 | 891.72 | 910.81 | 891.81 | 891.23 | 891.09 |
| 25 | 890.55 | 891.88 | 894.83 | 895.90 | 891.72 | 896.44 | 896.12 | 891.78 | 910.46 | 891.74 | 891.20 | 891.06 |
| 26 | 890.56 | 892.07 | 894.85 | 895.94 | 891.74 | 896.70 | 895.58 | 891.77 | 910.07 | 891.70 | 891.16 | 891.05 |
| 27 | 890.53 | 892.80 | 894.88 | 896.04 | 891.80 | 897.15 | 895.54 | 891.93 | 909.79 | 891.63 | 891.16 | 891.05 |
| 28 | 890.57 | 893.85 | 894.90 | 896.15 | 891.70 | 897.00 | 895.01 | 891.95 | 909.40 | 891.57 | 891.15 | 891.04 |
| 29 | 890.57 | 894.04 | 894.92 | 896.35 | 891.66 | 896.76 | 894.82 | 891.96 | 909.36 | 891.53 | 891.15 | 891.03 |
| 30 | 890.58 | 894.12 | 894.93 | 896.55 | --- | 896.48 | 896.60 | 891.92 | 908.94 | 891.48 | 891.14 | 891.00 |
| 31 | 890.64 | --- | 894.95 | 896.66 | --- | 896.17 | --- | 891.85 | --- | 891.47 | 891.07 | --- |
| MEAN | 890.43 | 891.77 | 894.62 | 895.66 | 893.51 | 893.33 | 898.07 | 894.17 | 903.52 | 897.31 | 891.32 | 891.04 |
| MAX | 890.64 | 894.12 | 894.95 | 896.66 | 896.72 | 897.15 | 900.56 | 897.38 | 910.92 | 908.48 | 891.45 | 891.17 |
| MIN | 890.26 | 890.70 | 894.14 | 894.98 | 891.66 | 891.40 | 894.82 | 891.72 | 891.65 | 891.47 | 891.07 | 890.86 |
| (+) | 215,300 | 256,200 | 266,700 | 289,400 | 226,900 | 282,800 | 288,600 | 229,000 | 487,800 | 224,700 | 220,100 | 219,300 |
| (#) | +2,300 | +40,900 | +10,500 | +22,700 | -62,500 | +55,900 | +5,600 | -59,600 | +258,800 | -263,100 | -4,600 | -800 |

CAL YR 1983 ........................ (#) +180,100
WTR YR 1984 ........................ (#) +6,300

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 06890900 DELAWARE RIVER BELOW PERRY DAM, KS

LOCATION.--Lat 39 deg 06 min 51 sec, long 95 deg 25 min 33 sec, in NE1/4 NW1/4 NW1/4 sec.9, T.11 S., R.18 E., Jefferson County, Hydrologic Unit 10270103, at outlet structure of Perry Dam, 4.5 mi northwest of Perry and 5.8 mi above mouth.

DRAINAGE AREA.--1,117 sq mi.

PERIOD OF RECORD.--March 1969 to current year.

REVISED RECORDS.--WDR KS-83-1: 1982.

GAGE.--Water-stage recorders for reservoir elevations and gated outflow structure.

REMARKS.--Records fair. Flow completely regulated since 1969 by Perry Lake (see sta 06890898). Discharge computed from relation between discharge, head, and gate openings.

COOPERATION.--Reservoir elevation-discharge ratings for reservoir outflow gates and gate operation logs furnished by Corps of Engineers.

AVERAGE DISCHARGE.--15 years, 730 cu ft per sec, 528,900 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,100 cu ft per sec July 9, 11, 1984; no flow at times in 1970-78, 1982-84.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,100 cu ft per sec July 9, 11; no flow Oct. 18 to Jan. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 25 | .00 | .00 | .00 | 200 | 402 | 2980 | 999 | 478 | 4760 | 50 | 25 |
| 2 | 25 | .00 | .00 | .00 | 487 | 402 | 2970 | 999 | 478 | 4750 | 34 | 25 |
| 3 | 25 | .00 | .00 | .00 | 791 | 402 | 3000 | 1000 | 478 | 4760 | 25 | 25 |
| 4 | 25 | .00 | .00 | .00 | 958 | 402 | 2020 | 1000 | 477 | 4820 | 25 | 25 |
| 5 | 25 | .00 | .00 | .00 | 956 | 402 | 1010 | 1600 | 335 | 4850 | 25 | 25 |
| 6 | 25 | .00 | .00 | .00 | 2010 | 402 | 2060 | 1940 | 250 | 4950 | 25 | 25 |
| 7 | 25 | .00 | .00 | .00 | 2960 | 402 | 3000 | 1940 | 1330 | 7450 | 25 | 25 |
| 8 | 25 | .00 | .00 | .00 | 2940 | 402 | 3020 | 2000 | 1990 | 9840 | 25 | 25 |
| 9 | 25 | .00 | .00 | .00 | 2950 | 402 | 1940 | 2050 | 2040 | 11100 | 25 | 25 |
| 10 | 25 | .00 | .00 | .00 | 2920 | 402 | 925 | 2050 | 2110 | 11800 | 25 | 25 |
| 11 | 25 | .00 | .00 | .00 | 2910 | 402 | 1810 | 2430 | 2180 | 11900 | 25 | 25 |
| 12 | 25 | .00 | .00 | .00 | 2880 | 402 | 3070 | 2940 | 2190 | 11800 | 25 | 25 |
| 13 | 25 | .00 | .00 | .00 | 2900 | 402 | 3090 | 2940 | 2180 | 11800 | 25 | 25 |
| 14 | 25 | .00 | .00 | .00 | 2860 | 402 | 3090 | 2940 | 2150 | 11700 | 25 | 25 |
| 15 | 25 | .00 | .00 | .00 | 2920 | 402 | 3140 | 3560 | 2120 | 11000 | 25 | 25 |
| 16 | 25 | .00 | .00 | .00 | 2940 | 402 | 3070 | 3900 | 2190 | 7250 | 25 | 25 |
| 17 | 10 | .00 | .00 | .00 | 1890 | 402 | 3050 | 3900 | 2210 | 3760 | 25 | 22 |
| 18 | .00 | .00 | .00 | .00 | 915 | 404 | 4160 | 3940 | 2190 | 1580 | 25 | 23 |
| 19 | .00 | .00 | .00 | .00 | 910 | 406 | 2970 | 3070 | 2070 | 404 | 25 | 21 |
| 20 | .00 | .00 | .00 | .00 | 926 | 408 | 4870 | 2500 | 1930 | 404 | 25 | 19 |
| 21 | .00 | .00 | .00 | .00 | 618 | 410 | 4900 | 2480 | 1940 | 404 | 25 | 17 |
| 22 | .00 | .00 | .00 | .00 | 402 | 414 | 4910 | 2460 | 2030 | 404 | 25 | 29 |
| 23 | .00 | .00 | .00 | .00 | 402 | 1780 | 4960 | 1500 | 2030 | 404 | 25 | 25 |
| 24 | .00 | .00 | .00 | .00 | 402 | 2940 | 4950 | 751 | 2030 | 404 | 25 | 25 |
| 25 | .00 | .00 | .00 | .00 | 402 | 2970 | 4940 | 478 | 3740 | 404 | 25 | 25 |
| 26 | .00 | .00 | .00 | .00 | 402 | 2990 | 4910 | 473 | 4770 | 402 | 25 | 25 |
| 27 | .00 | .00 | .00 | .00 | 402 | 2990 | 4920 | 473 | 4820 | 402 | 25 | 25 |
| 28 | .00 | .00 | .00 | .00 | 404 | 2990 | 4930 | 479 | 4830 | 266 | 25 | 25 |
| 29 | .00 | .00 | .00 | .00 | 402 | 2990 | 5010 | 479 | 4810 | 170 | 25 | 25 |
| 30 | .00 | .00 | .00 | .00 | --- | 3000 | 2500 | 484 | 4790 | 144 | 19 | 25 |
| 31 | .00 | --- | .00 | .00 | --- | 2980 | --- | 478 | --- | 50 | 25 | --- |
| TOTAL | 410.00 | .00 | .00 | .00 | 43059 | 34506 | 102175 | 58233 | 67166 | 144132 | 803 | 731 |
| MEAN | 13.2 | .000 | .000 | .000 | 1485 | 1113 | 3406 | 1878 | 2239 | 4649 | 25.9 | 24.4 |
| MAX | 25 | .00 | .00 | .00 | 2960 | 3000 | 5010 | 3940 | 4830 | 11900 | 50 | 29 |
| MIN | .00 | .00 | .00 | .00 | 200 | 402 | 925 | 473 | 250 | 50 | 19 | 17 |
| AC-FT | 813 | .00 | .00 | .00 | 85410 | 68440 | 202700 | 115500 | 133200 | 285900 | 1590 | 1450 |

CAL YR 1983 TOTAL 303637.00 MEAN 832 MAX 5940 MIN .00 AC-FT 602300
WTR YR 1984 TOTAL 451215.00 MEAN 1233 MAX 11900 MIN .00 AC-FT 895000

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## 06891000 KANSAS RIVER AT LECOMPTON, KS

LOCATION.--Lat 39 deg 03 min 07 sec, long 95 deg 23 min 15 sec, in SE1/4 SW1/4 NW1/4 sec.35, T.11 S., R.18 E., Jefferson County, Hydrologic Unit 10270104, on left bank at upstream side of highway bridge at Lecompton, 0.8 mi downstream from Delaware River, and at mile 63.8.

DRAINAGE AREA.--58,460 sq mi, approximately, of which a large area is noncontributing.

PERIOD OF RECORD.--January to November 1896 and April to July 1906 (gage heights only), March 1936 to current year. Records for April 1899 to December 1905 published in WSP 37, 39, 50, 52, 66, 75, 84, 99, 131, 172, and 796-B have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 876: 1937. WSP 1176: 1903(M). WSP 1440: 1948-49(P). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 821.84 ft National Geodetic Vertical Datum of 1929. Prior to July 30, 1952, nonrecording gage, and July 30, 1952, to Apr. 29, 1970, recording gage, at site 0.15 mi upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by lakes and reservoirs in Colorado, Nebraska, and Kansas, and by numerous diversions above station.

AVERAGE DISCHARGE.--48 years (water years 1937-84), 7,063 cu ft per sec, 5,117,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 483,000 cu ft per sec July 13, 1951, gage height, 30.23 ft, from rating curve extended above 120,000 cu ft per sec on basis of slope-area measurement of peak flow; minimum daily, 185 cu ft per sec Oct. 13, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1844, 30.23 ft July 13, 1951. Flood of May 31, 1903 (second highest since 1844), reached a stage of 27.9 ft, from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 77,800 cu ft per sec June 10, gage height, 16.98 ft; minimum daily discharge, 968 cu ft per sec Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 968 | 2150 | 4890 | 1860 | 3000 | 3850 | 15400 | 42900 | 24500 | 26700 | 3720 | 2830 |
| 2 | 1500 | 2040 | 4360 | 1880 | 3300 | 3760 | 14900 | 29200 | 18800 | 26400 | 3750 | 2890 |
| 3 | 5100 | 2080 | 4420 | 1900 | 3900 | 3940 | 25400 | 30500 | 14400 | 27200 | 3700 | 2960 |
| 4 | 5740 | 2190 | 6190 | 1950 | 4650 | 4580 | 32500 | 28100 | 13800 | 27400 | 3550 | 2900 |
| 5 | 5920 | 2040 | 6340 | 2010 | 5170 | 4890 | 31800 | 24400 | 13400 | 26800 | 3440 | 2870 |
| 6 | 4760 | 1920 | 6180 | 2200 | 7430 | 4870 | 29400 | 23600 | 12200 | 26400 | 3370 | 2850 |
| 7 | 3280 | 1980 | 6050 | 2360 | 9130 | 4670 | 29400 | 24500 | 14200 | 29900 | 3410 | 2500 |
| 8 | 2660 | 1970 | 5940 | 2520 | 11000 | 4330 | 31300 | 23700 | 24700 | 36400 | 3310 | 2090 |
| 9 | 2540 | 2190 | 5700 | 2600 | 13400 | 4020 | 36700 | 22900 | 29700 | 36300 | 3260 | 1940 |
| 10 | 2540 | 3100 | 5600 | 2650 | 13400 | 3960 | 24500 | 21900 | 58400 | 37800 | 3240 | 1730 |
| 11 | 2680 | 4790 | 5530 | 2700 | 13500 | 3920 | 21800 | 20200 | 36100 | 40300 | 3200 | 1610 |
| 12 | 3140 | 3930 | 5380 | 2700 | 13300 | 3960 | 23900 | 22700 | 20000 | 40700 | 3020 | 1630 |
| 13 | 2900 | 2820 | 5290 | 2700 | 13600 | 4010 | 22300 | 24500 | 17600 | 41400 | 2690 | 1580 |
| 14 | 2710 | 2470 | 5190 | 2700 | 13500 | 4200 | 21100 | 24300 | 17300 | 42400 | 2450 | 2290 |
| 15 | 2930 | 2340 | 5100 | 2700 | 13500 | 4470 | 20800 | 24600 | 13800 | 41800 | 2380 | 2590 |
| 16 | 3760 | 2240 | 5000 | 2700 | 14100 | 4510 | 19800 | 26000 | 20700 | 37400 | 2320 | 2570 |
| 17 | 3780 | 2280 | 5000 | 2700 | 14400 | 5610 | 18500 | 29700 | 19000 | 33900 | 2280 | 1790 |
| 18 | 3720 | 2470 | 4900 | 2680 | 12300 | 8590 | 19200 | 29300 | 12900 | 31300 | 2230 | 1490 |
| 19 | 3930 | 2990 | 4800 | 2600 | 12100 | 18600 | 22000 | 28500 | 11700 | 30100 | 2190 | 1390 |
| 20 | 4930 | 2960 | 4500 | 2600 | 12200 | 15500 | 23900 | 29600 | 10700 | 28800 | 2120 | 1280 |
| 21 | 4750 | 2940 | 3800 | 2550 | 11500 | 20100 | 27300 | 28500 | 19900 | 25300 | 2160 | 1310 |
| 22 | 4620 | 2940 | 2600 | 2550 | 11000 | 26400 | 27400 | 27800 | 35500 | 21900 | 2310 | 1270 |
| 23 | 4190 | 2780 | 2100 | 2550 | 8430 | 24400 | 26200 | 27700 | 20000 | 20600 | 2330 | 1240 |
| 24 | 3940 | 2250 | 2000 | 2550 | 6240 | 22900 | 25100 | 26700 | 14400 | 17800 | 2560 | 1220 |
| 25 | 4280 | 2130 | 1900 | 2550 | 5880 | 32300 | 25000 | 25900 | 14900 | 13500 | 2630 | 1190 |
| 26 | 3640 | 2110 | 1850 | 2550 | 5120 | 27300 | 27400 | 25600 | 14900 | 8730 | 2750 | 1170 |
| 27 | 3110 | 3960 | 1850 | 2550 | 4430 | 31500 | 29700 | 28200 | 20600 | 6460 | 2910 | 1170 |
| 28 | 2970 | 11700 | 1850 | 2600 | 4170 | 24700 | 31400 | 29900 | 23000 | 5250 | 2900 | 1180 |
| 29 | 2830 | 9660 | 1850 | 2660 | 3990 | 21200 | 36300 | 26700 | 29600 | 4580 | 2970 | 1220 |
| 30 | 2490 | 6070 | 1850 | 2720 | --- | 20700 | 59200 | 25900 | 26900 | 4190 | 2790 | 1250 |
| 31 | 2240 | --- | 1850 | 2850 | --- | 18700 | --- | 25500 | --- | 3880 | 2780 | --- |
| TOTAL | 108548 | 97490 | 129860 | 77390 | 267640 | 386440 | 799600 | 829500 | 623600 | 801590 | 88720 | 56000 |
| MEAN | 3502 | 3250 | 4189 | 2496 | 9229 | 12470 | 26650 | 26760 | 20790 | 25860 | 2862 | 1867 |
| MAX | 5920 | 11700 | 6340 | 2850 | 14400 | 32300 | 59200 | 42900 | 58400 | 42400 | 3750 | 2960 |
| MIN | 968 | 1920 | 1850 | 1860 | 3000 | 3760 | 14900 | 20200 | 10700 | 3880 | 2120 | 1170 |
| AC-FT | 215300 | 193400 | 257600 | 153500 | 530900 | 766500 | 1586000 | 1645000 | 1237000 | 1590000 | 176000 | 111100 |

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CAL YR 1983   TOTAL    3019391    MEAN   8272    MAX  49100    MIN 914    AC-FT    5989000
WTR YR 1984   TOTAL    4266378    MEAN  11660    MAX  59200    MIN 968    AC-FT    8462000
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## 06891478 CLINTON LAKE NEAR LAWRENCE, KS

LOCATION.--Lat 38 deg 55 min 51 sec, long 95 deg 20 min 02 sec, in NW1/4 SW1/4 SW1/4 sec.8, T.13 S., R.19 E., Douglas County, Hydrologic Unit 10270104, in control tower of Clinton Dam on Wakarusa River, 4.0 mi west of Lawrence, and 22.3 mi above mouth.

DRAINAGE AREA.--367 sq mi.

PERIOD OF RECORD.--December 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Nov. 30, 1977. Total capacity, 683,400 acre-ft, consisting of the following: Dead storage, 90 acre-ft below elevation 825.0 ft; conservation pool, 129,100 acre-ft between elevations 825.0 ft and 875.5 ft; flood control pool, 268,400 acre-ft between elevations 875.5 ft and 903.4 ft; and surcharge pool, 285,800 acre-ft between elevations 903.4 ft and 921.4 ft. Reservoir is used for flood control, conservation, and recreation. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 886.72 ft June 4, 1982, contents, 219,200 acre-ft; minimum since conservation pool first filled, 872.48 ft Oct. 18, 19, 1983, contents, 108,900 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 880.81 ft June 30, July 1, contents, 168,900 acre-ft; minimum, 872.48 ft Oct. 18, 19, contents, 108,900 acre-ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)
(Computed by Corps of Engineers in 1965)

| | | | |
|---|---|---|---|
| 870 | 93,420 | 880 | 162,500 |
| 875 | 125,700 | 885 | 203,900 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 872.77 | 872.62 | 873.32 | 874.03 | 874.88 | 875.36 | 878.46 | 878.84 | 875.32 | 880.79 | 875.21 | 874.38 |
| 2 | 872.74 | 872.60 | 873.32 | 874.03 | 874.91 | 875.38 | 878.36 | 878.95 | 875.22 | 880.75 | 875.13 | 874.36 |
| 3 | 872.73 | 872.59 | 873.42 | 874.04 | 874.93 | 875.43 | 878.49 | 879.04 | 875.06 | 880.70 | 875.10 | 874.32 |
| 4 | 872.74 | 872.58 | 873.43 | 874.06 | 874.94 | 875.55 | 878.54 | 879.11 | 874.98 | 880.68 | 875.07 | 874.29 |
| 5 | 872.70 | 872.58 | 873.46 | 874.08 | 874.93 | 875.62 | 878.64 | 879.15 | 874.98 | 880.61 | 875.05 | 874.24 |
| 6 | 872.68 | 872.57 | 873.48 | 874.11 | 874.94 | 875.66 | 878.59 | 879.21 | 874.97 | 880.59 | 875.04 | 874.21 |
| 7 | 872.66 | 872.59 | 873.51 | 874.18 | 874.95 | 875.72 | 878.48 | 879.24 | 875.28 | 880.56 | 875.10 | 874.15 |
| 8 | 872.63 | 872.56 | 873.53 | 874.32 | 874.97 | 875.71 | 879.04 | 879.27 | 875.47 | 880.57 | 875.04 | 874.17 |
| 9 | 872.62 | 872.64 | 873.53 | 874.42 | 874.99 | 875.73 | 879.43 | 879.30 | 876.47 | 880.52 | 875.01 | 874.15 |
| 10 | 872.60 | 872.62 | 873.59 | 874.48 | 875.00 | 875.75 | 879.64 | 879.34 | 877.58 | 880.43 | 874.97 | 874.12 |
| 11 | 872.65 | 872.62 | 873.67 | 874.51 | 875.05 | 875.74 | 879.91 | 879.36 | 877.82 | 880.25 | 874.94 | 874.13 |
| 12 | 872.63 | 872.59 | 873.72 | 874.55 | 875.05 | 875.79 | 880.11 | 879.26 | 877.90 | 880.05 | 874.92 | 874.10 |
| 13 | 872.60 | 872.61 | 873.76 | 874.56 | 875.05 | 875.76 | 880.03 | 879.05 | 877.96 | 879.95 | 874.89 | 874.08 |
| 14 | 872.55 | 872.60 | 873.78 | 874.57 | 875.05 | 875.76 | 879.88 | 878.82 | 878.00 | 879.69 | 874.87 | 874.28 |
| 15 | 872.56 | 872.58 | 873.79 | 874.60 | 875.07 | 875.71 | 879.75 | 878.59 | 878.01 | 879.35 | 874.85 | 874.25 |
| 16 | 872.53 | 872.55 | 873.79 | 874.62 | 875.10 | 875.75 | 879.60 | 878.37 | 878.05 | 878.94 | 874.83 | 874.21 |
| 17 | 872.50 | 872.56 | 873.80 | 874.63 | 875.10 | 875.90 | 879.42 | 878.15 | 878.05 | 878.81 | 874.79 | 874.18 |
| 18 | 872.48 | 872.54 | 873.82 | 874.64 | 875.21 | 876.50 | 879.23 | 877.92 | 878.04 | 878.55 | 874.74 | 874.16 |
| 19 | 872.57 | 872.56 | 873.82 | 874.64 | 875.18 | 877.72 | 879.02 | 877.68 | 878.04 | 878.32 | 874.70 | 874.14 |
| 20 | 872.58 | 872.52 | 873.88 | 874.64 | 875.19 | 878.23 | 878.83 | 877.46 | 878.08 | 878.08 | 874.68 | 874.12 |
| 21 | 872.63 | 872.50 | 873.92 | 874.65 | 875.21 | 878.66 | 879.01 | 877.25 | 879.59 | 877.84 | 874.70 | 874.10 |
| 22 | 872.62 | 872.55 | 873.92 | 874.66 | 875.23 | 878.84 | 879.25 | 877.04 | 879.96 | 877.53 | 874.67 | 874.09 |
| 23 | 872.61 | 872.57 | 873.92 | 874.67 | 875.22 | 878.83 | 879.22 | 876.78 | 880.02 | 877.27 | 874.65 | 874.07 |
| 24 | 872.60 | 872.53 | 873.93 | 874.68 | 875.24 | 878.95 | 879.10 | 876.57 | 880.05 | 877.04 | 874.60 | 874.05 |
| 25 | 872.58 | 872.52 | 873.93 | 874.70 | 875.20 | 878.91 | 878.99 | 876.29 | 880.07 | 876.76 | 874.58 | 874.03 |
| 26 | 872.57 | 872.53 | 873.94 | 874.72 | 875.26 | 879.10 | 878.83 | 876.05 | 880.05 | 876.48 | 874.56 | 874.00 |
| 27 | 872.56 | 872.90 | 873.97 | 874.75 | 875.30 | 879.34 | 878.66 | 876.03 | 880.30 | 876.21 | 874.53 | 873.97 |
| 28 | 872.53 | 873.21 | 873.98 | 874.77 | 875.32 | 879.29 | 878.45 | 875.89 | 880.41 | 875.94 | 874.50 | 873.94 |
| 29 | 872.52 | 873.28 | 873.99 | 874.80 | 875.35 | 879.13 | 878.55 | 875.69 | 880.80 | 875.67 | 874.48 | 873.92 |
| 30 | 872.62 | 873.31 | 873.99 | 874.86 | --- | 878.93 | 878.72 | 875.54 | 880.81 | 875.50 | 874.44 | 873.90 |
| 31 | 872.61 | --- | 874.00 | 874.86 | --- | 878.73 | --- | 875.43 | --- | 875.36 | 874.42 | --- |
| MEAN | 872.61 | 872.65 | 873.74 | 874.51 | 875.10 | 877.02 | 879.07 | 877.89 | 877.91 | 878.70 | 874.81 | 874.14 |
| MAX | 872.77 | 873.31 | 874.00 | 874.86 | 875.35 | 879.34 | 880.11 | 879.36 | 880.81 | 880.79 | 875.21 | 874.38 |
| MIN | 872.48 | 872.50 | 873.32 | 874.03 | 874.88 | 875.36 | 878.36 | 875.43 | 874.97 | 875.36 | 874.42 | 873.90 |
| (+) | 109,700 | 114,300 | 118,900 | 124,700 | 128,100 | 153,000 | 152,900 | 128,700 | 168,900 | 128,200 | 121,700 | 118,200 |
| (#) | -1,200 | +4,600 | +4,600 | +5,800 | +3,400 | +24,900 | -100 | -24,200 | +40,200 | -40,700 | -6,500 | -3,500 |

CAL YR 1983 ........................ (#) -400
WTR YR 1984 ........................ (#) -7,300

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 06891500 WAKARUSA RIVER NEAR LAWRENCE, KS

LOCATION.--Lat 38 deg 54 min 40 sec, long 95 deg 15 min 37 sec, in NE1/4 NE1/4 NE1/4 sec.23, T.13 S., R.19 E., Douglas County, Hydrologic Unit 10270104, on left bank at upstream side of bridge on U.S. Highway 59, 4 mi south of Lawrence, and at mile 16.3.

DRAINAGE AREA.--425 sq mi. Dec. 1, 1972 to Sept. 30, 1980, 412 sq mi.

PERIOD OF RECORD.--April 1929 to current year. Published as "below Clinton Dam" December 1972 to September 1980.

REVISED RECORDS.--WSP 976: 1935. WSP 1310: 1929(M), 1933(M), 1938(M), 1945-47(M), 1949-50(M). WSP 1919: 1958, 1959.

GAGE.--Water-stage recorder. Datum of gage is 799.26 ft National Geodetic Vertical Datum of 1929. Prior to May 7, 1959, nonrecording gage, and May 8, 1959, to Nov. 30, 1972, water-stage recorder at present site and datum. Dec. 1, 1972 to Sept. 30, 1980, water-stage recorder at site 2.3 mi upstream at datum 3.95 ft higher.

REMARKS.--Records fair. Nearly total regulation by Clinton Dam since Nov. 30, 1977 (see sta 06891478).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,200 cu ft per sec July 12, 1951, gage height, 31.59 ft, from floodmarks, from rating curve extended above 15,000 cu ft per sec; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1880, that of July 12, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,590 cu ft per sec June 21, gage height, 23.76 ft; minimum, 0.14 cu ft per sec Nov. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24 | .82 | 14 | 8.3 | 10 | 20 | 1380 | 127 | 480 | 261 | 473 | 23 |
| 2 | 25 | .29 | 3.4 | 7.9 | 9.1 | 19 | 1440 | 96 | 477 | 261 | 273 | 26 |
| 3 | 25 | .24 | 9.8 | 6.9 | 7.9 | 18 | 1480 | 87 | 476 | 260 | 39 | 25 |
| 4 | 28 | .24 | 13 | 7.5 | 7.5 | 54 | 888 | 69 | 307 | 270 | 39 | 18 |
| 5 | 26 | .24 | 11 | 11 | 6.8 | 48 | 53 | 60 | 41 | 259 | 39 | 16 |
| 6 | 25 | 4.9 | 9.2 | 17 | 4.6 | 34 | 462 | 57 | 39 | 256 | 39 | 24 |
| 7 | 24 | 9.1 | 4.9 | 34 | 5.5 | 29 | 1090 | 53 | 39 | 255 | 39 | 25 |
| 8 | 25 | 37 | 3.5 | 51 | 4.6 | 25 | 1470 | 30 | 41 | 256 | 39 | 36 |
| 9 | 25 | 27 | 3.1 | 56 | 12 | 22 | 889 | 25 | 1050 | 253 | 39 | 28 |
| 10 | 25 | 28 | 2.4 | 31 | 17 | 21 | 123 | 23 | 695 | 312 | 33 | 27 |
| 11 | 33 | 28 | 107 | 27 | 19 | 21 | 574 | 22 | 187 | 736 | 21 | 27 |
| 12 | 27 | 27 | 51 | 62 | 17 | 47 | 1930 | 562 | 131 | 1050 | 21 | 27 |
| 13 | 25 | 27 | 27 | 58 | 14 | 258 | 1260 | 1030 | 77 | 1050 | 21 | 27 |
| 14 | 25 | 27 | 21 | 41 | 22 | 263 | 1180 | 1030 | 56 | 1040 | 21 | 66 |
| 15 | 25 | 26 | 15 | 13 | 23 | 263 | 1150 | 1030 | 58 | 1040 | 20 | 30 |
| 16 | 25 | 26 | 11 | 11 | 17 | 189 | 1090 | 1020 | 51 | 1030 | 20 | 26 |
| 17 | 25 | 24 | 9.5 | 11 | 22 | 316 | 1070 | 1020 | 47 | 1030 | 21 | 25 |
| 18 | 25 | 24 | 7.2 | 11 | 21 | 422 | 1060 | 1010 | 44 | 1010 | 21 | 25 |
| 19 | 35 | 26 | 7.2 | 11 | 16 | 963 | 1050 | 1010 | 41 | 1010 | 21 | 23 |
| 20 | 36 | 26 | 7.5 | 10 | 15 | 508 | 1070 | 1010 | 57 | 1000 | 21 | 24 |
| 21 | 36 | 26 | 7.9 | 10 | 14 | 533 | 1320 | 1000 | 2550 | 996 | 26 | 24 |
| 22 | 46 | 35 | 7.9 | 10 | 16 | 388 | 1270 | 1000 | 1440 | 991 | 23 | 25 |
| 23 | 46 | 37 | 9.5 | 10 | 16 | 677 | 1190 | 996 | 287 | 987 | 22 | 26 |
| 24 | 28 | 32 | 10 | 10 | 16 | 1520 | 1130 | 995 | 216 | 981 | 22 | 25 |
| 25 | 27 | 30 | 10 | 10 | 15 | 1450 | 1110 | 999 | 108 | 975 | 22 | 28 |
| 26 | 27 | 30 | 9.1 | 16 | 18 | 1480 | 1090 | 987 | 152 | 971 | 21 | 28 |
| 27 | 25 | 148 | 9.1 | 14 | 24 | 863 | 1150 | 1160 | 335 | 964 | 21 | 30 |
| 28 | 1.8 | 81 | 8.7 | 21 | 21 | 1010 | 1080 | 1050 | 282 | 958 | 21 | 30 |
| 29 | 11 | 43 | 8.3 | 16 | 20 | 1420 | 1590 | 1000 | 285 | 952 | 21 | 29 |
| 30 | 1.1 | 26 | 7.9 | 12 | --- | 1400 | 927 | 780 | 277 | 594 | 21 | 29 |
| 31 | 1.2 | --- | 8.3 | 10 | --- | 1380 | --- | 482 | --- | 459 | 22 | --- |
| TOTAL | 783.1 | 856.83 | 434.4 | 624.6 | 431.0 | 15661 | 32566 | 19820 | 10326 | 22467 | 1502 | 822 |
| MEAN | 25.3 | 28.6 | 14.0 | 20.1 | 14.9 | 505 | 1086 | 639 | 344 | 725 | 48.5 | 27.4 |
| MAX | 46 | 148 | 107 | 62 | 24 | 1520 | 1930 | 1160 | 2550 | 1050 | 473 | 66 |
| MIN | 1.1 | .24 | 2.4 | 6.9 | 4.6 | 18 | 53 | 22 | 39 | 253 | 20 | 16 |
| AC-FT | 1550 | 1700 | 862 | 1240 | 855 | 31060 | 64590 | 39310 | 20480 | 44560 | 2980 | 1630 |

| | TOTAL | MEAN | MAX | MIN | AC-FT |
|---|---|---|---|---|---|
| CAL YR 1983 | 117443.33 | 322 | 2440 | .24 | 232900 |
| WTR YR 1984 | 106293.93 | 290 | 2550 | .24 | 210800 |

## 06892000 STRANGER CREEK NEAR TONGANOXIE, KS

LOCATION.--Lat 39 deg 06 min 59 sec, long 95 deg 00 min 39 sec, in NE1/4 NE1/4 NW1/4 sec.7, T.11 S., R.22 E., Leavenworth County, Hydrologic Unit 10270104, at downstream side of bridge on U.S. Highway 40, 2.0 mi upstream from Tonganoxie Creek, 4.0 mi east of Tonganoxie, and at mile 18.1.

DRAINAGE AREA.--406 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1929 to current year.

REVISED RECORDS.--WSP 1440: 1929, 1936(M), 1940, 1942(M), 1949. WSP 1710: 1951.

GAGE.--Water-stage recorder. Datum of gage is 801.95 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Apr. 30, 1929, to June 1, 1939, nonrecording gage and June 2, 1939, to June 1, 1960, water-stage recorder, both at site 1.3 mi downstream at datum 5.00 ft lower.

REMARKS.--Records good except those for winter period, which are fair. Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--55 years, 228 cu ft per sec, 165,200 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,100 cu ft per sec July 12, 1951, gage height, 27.64 ft, present site and datum, from rating curve extended above 16,000 cu ft per sec on basis of contracted-opening measurement of peak flow; maximum stage, 28.88 ft Sept. 13, 1977; no flow at times many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,600 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Apr. 5 | 0600 | 2,600 | 16.40 | Apr. 23 | 2400 | 2,610 | 16.41 |
| Apr. 9 | 2000 | 2,730 | 16.78 | June 15 | 1900 | *4,070 | 20.28 |
| Apr. 12 | 0400 | 2,810 | 16.99 | June 22 | 1200 | 2,980 | 17.47 |

Minimum discharge, 0.65 cu ft per sec Oct. 11-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.7 | 34 | 81 | 29 | 271 | 70 | 273 | 1280 | 97 | 88 | 8.8 | 2.1 |
| 2 | 4.8 | 16 | 62 | 30 | 177 | 65 | 462 | 466 | 83 | 77 | 8.3 | 1.9 |
| 3 | 2.6 | 10 | 58 | 30 | 160 | 62 | 1990 | 383 | 73 | 69 | 7.9 | 1.3 |
| 4 | 2.6 | 9.4 | 56 | 32 | 133 | 97 | 2530 | 342 | 66 | 173 | 7.5 | 1.5 |
| 5 | 3.4 | 40 | 54 | 34 | 111 | 128 | 2150 | 275 | 63 | 407 | 7.4 | 1.4 |
| 6 | 3.9 | 54 | 55 | 37 | 91 | 124 | 648 | 239 | 59 | 186 | 7.8 | 1.1 |
| 7 | 4.4 | 17 | 34 | 52 | 87 | 105 | 420 | 228 | 64 | 92 | 8.0 | .91 |
| 8 | 2.7 | 9.0 | 41 | 116 | 72 | 85 | 1750 | 211 | 1080 | 75 | 7.7 | 1.4 |
| 9 | 1.6 | 6.7 | 51 | 264 | 69 | 70 | 2700 | 189 | 1910 | 64 | 7.9 | 2.3 |
| 10 | 1.4 | 8.6 | 55 | 342 | 70 | 63 | 2480 | 167 | 1700 | 53 | 7.5 | 2.6 |
| 11 | .89 | 115 | 42 | 261 | 75 | 65 | 840 | 154 | 1340 | 48 | 6.9 | 2.5 |
| 12 | 2.5 | 213 | 43 | 130 | 102 | 64 | 1980 | 141 | 242 | 42 | 6.6 | 3.9 |
| 13 | 1.8 | 71 | 36 | 100 | 88 | 67 | 1130 | 134 | 156 | 35 | 7.1 | 3.2 |
| 14 | 6.0 | 31 | 35 | 66 | 72 | 73 | 565 | 123 | 127 | 31 | 6.5 | 40 |
| 15 | 8.2 | 20 | 30 | 48 | 62 | 83 | 404 | 113 | 2480 | 28 | 6.2 | 30 |
| 16 | 5.9 | 14 | 27 | 41 | 62 | 86 | 382 | 107 | 3240 | 25 | 6.0 | 19 |
| 17 | 4.4 | 11 | 29 | 38 | 81 | 429 | 326 | 101 | 3130 | 24 | 5.5 | 21 |
| 18 | 4.7 | 8.6 | 19 | 35 | 101 | 876 | 273 | 94 | 862 | 24 | 5.3 | 13 |
| 19 | 6.2 | 8.1 | 16 | 31 | 119 | 1770 | 235 | 91 | 723 | 23 | 5.1 | 7.7 |
| 20 | 40 | 7.6 | 16 | 26 | 140 | 1580 | 220 | 139 | 267 | 20 | 5.1 | 4.1 |
| 21 | 67 | 7.9 | 17 | 22 | 113 | 1280 | 790 | 454 | 1170 | 18 | 5.5 | 2.8 |
| 22 | 19 | 8.1 | 18 | 20 | 86 | 1840 | 1300 | 208 | 2350 | 16 | 6.2 | 1.8 |
| 23 | 13 | 11 | 19 | 20 | 77 | 1890 | 2340 | 153 | 1150 | 15 | 4.8 | 2.9 |
| 24 | 16 | 13 | 21 | 23 | 69 | 904 | 1630 | 161 | 328 | 13 | 4.2 | 2.1 |
| 25 | 9.3 | 15 | 21 | 27 | 62 | 1500 | 491 | 117 | 223 | 12 | 3.8 | 1.4 |
| 26 | 6.6 | 17 | 21 | 39 | 59 | 1260 | 355 | 99 | 162 | 11 | 4.5 | 1.1 |
| 27 | 4.1 | 64 | 22 | 67 | 73 | 1310 | 499 | 137 | 138 | 10 | 3.8 | 3.2 |
| 28 | 4.8 | 786 | 23 | 178 | 90 | 1180 | 329 | 247 | 247 | 10 | 2.8 | 4.2 |
| 29 | 4.1 | 1240 | 24 | 349 | 82 | 571 | 843 | 343 | 189 | 9.3 | 2.3 | 4.6 |
| 30 | 12 | 221 | 26 | 357 | --- | 420 | 1640 | 177 | 110 | 8.8 | 1.9 | 5.0 |
| 31 | 14 | --- | 28 | 400 | --- | 308 | --- | 116 | --- | 8.9 | 2.3 | --- |
| TOTAL | 281.59 | 3087.0 | 1080 | 3244 | 2854 | 18425 | 31975 | 7189 | 23829 | 1716.0 | 181.2 | 189.81 |
| MEAN | 9.08 | 103 | 34.8 | 105 | 98.4 | 594 | 1066 | 232 | 794 | 55.4 | 5.85 | 6.33 |
| MAX | 67 | 1240 | 81 | 400 | 271 | 1890 | 2700 | 1280 | 3240 | 407 | 8.8 | 40 |
| MIN | .89 | 6.7 | 16 | 20 | 59 | 62 | 220 | 91 | 59 | 8.8 | 1.9 | .91 |
| AC-FT | 559 | 6120 | 2140 | 6430 | 5660 | 36550 | 63420 | 14260 | 47260 | 3400 | 359 | 376 |

CAL YR 1983 TOTAL 111392.52 MEAN 305 MAX 6370 MIN .83 AC-FT 220900
WTR YR 1984 TOTAL 94051.60 MEAN 257 MAX 3240 MIN .89 AC-FT 186600

## 06892000 STRANGER CREEK NEAR TONGANOXIE, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-59, 1976 to current year.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT | | | | | |
| 11... | 11:05 | 0.84 | 450 | 8.0 | 15.0 |
| NOV | | | | | |
| 29... | 10:45 | 1590 | 230 | 7.8 | 3.5 |
| MAR | | | | | |
| 27... | 10:30 | 1260 | 317 | 7.6 | 5.0 |
| JUN | | | | | |
| 26... | 12:25 | 159 | 490 | 7.9 | 27.0 |
| AUG | | | | | |
| 02... | 15:15 | 8.2 | 670 | 8.3 | 29.5 |
| SEP | | | | | |
| 13... | 09:45 | 3.5 | 373 | 8.2 | 24.5 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| OCT | | | | |
| 11... | 11:05 | 0.84 | 129 | 0.29 |
| FEB | | | | |
| 29... | 14:45 | 79 | 909 | 194 |
| MAR | | | | |
| 27... | 10:30 | 1260 | 660 | 2250 |
| MAY | | | | |
| 10... | 14:35 | 167 | 129 | 55 |
| JUN | | | | |
| 26... | 12:25 | 159 | 422 | 181 |

### PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM |
|---|---|---|---|---|---|
| MAR | | | | | |
| 27... | 94 | 95 | 96 | 98 | 100 |

## 06892350 KANSAS RIVER AT DESOTO, KS
(National stream-quality accounting network station)

LOCATION.--Lat 38 deg 59 min 00 sec, long 94 deg 57 min 52 sec, in SE1/4 NE1/4 NE1/4 sec.27, T.12 S., R.22 E., Leavenworth County, Hydrologic Unit 10270104, on left bank at downstream side of bridge on county road, north edge of DeSoto, 0.4 mi upstream from Kill Creek and at mile 31.0.

DRAINAGE AREA.--59,756 sq mi, of which a large area is noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1917 to current year. Monthly discharge only for some periods published in WSP 1310. Prior to October 1973, published as "at Bonner Springs."

REVISED RECORDS.--WSP 506: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 758.87 ft National Geodetic Vertical Datum of 1929. July 9, 1917, to Apr. 23, 1934, nonrecording gage; Apr. 24, 1934, to Nov. 26, 1961, water-stage recorder at site 9.7 mi downstream at datum 11.81 ft lower; Nov. 26, 1961, to Sept. 30, 1971, water-stage recorder at site 10.2 mi downstream at datum 17.81 ft lower; and Oct. 1, 1971, to Sept. 30, 1973, at site 10.2 mi downstream at datum 22.81 ft lower.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by lakes and reservoirs in Colorado, Nebraska, and Kansas, and by numerous diversions above station. Diurnal fluctuations caused by hydroelectric plant 20.8 mi upstream; since storage capacity is small, daily flows are not affected appreciably.

AVERAGE DISCHARGE.--67 years, 7,073 cu ft per sec 5,124,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 510,000 cu ft per sec July 13, 1951, gage height, 37.3 ft, from floodmarks, present site and datum, from rating curve extended above 128,000 cu ft per sec on basis of slope-area measurement of peak flow at mile 19.52 and at mile 18.60; minimum observed, 160 cu ft per sec Oct. 11, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1844, that of July 13, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 73,400 cu ft per sec June 11, gage height, 19.04 ft; minimum daily, 1,050 cu ft per sec Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1090 | 2210 | 6140 | 1910 | 2850 | 4270 | 19200 | 58100 | 26600 | 27800 | 4910 | 2700 |
| 2 | 1050 | 2180 | 5170 | 1970 | 3000 | 4160 | 18200 | 36800 | 22100 | 27300 | 4770 | 2680 |
| 3 | 1580 | 2780 | 4730 | 2010 | 3270 | 4120 | 24100 | 34800 | 17700 | 27300 | 4320 | 2720 |
| 4 | 5290 | 2230 | 5500 | 2070 | 3800 | 4820 | 35600 | 34200 | 15400 | 27600 | 4090 | 2680 |
| 5 | 5740 | 2230 | 6720 | 2290 | 5560 | 5330 | 35400 | 29700 | 14600 | 27200 | 3900 | 2560 |
| 6 | 5740 | 2080 | 6690 | 2600 | 6230 | 5290 | 29800 | 27500 | 13700 | 26400 | 3690 | 2580 |
| 7 | 4240 | 2000 | 6490 | 2710 | 8970 | 5050 | 31900 | 27900 | 13100 | 26900 | 3640 | 2460 |
| 8 | 3130 | 2020 | 6420 | 2860 | 9750 | 4840 | 33400 | 27400 | 21800 | 34300 | 3580 | 2340 |
| 9 | 2660 | 2050 | 6270 | 2990 | 12300 | 4480 | 43100 | 26600 | 40400 | 36300 | 3450 | 2060 |
| 10 | 2540 | 2500 | 5930 | 3060 | 12900 | 4260 | 32000 | 25600 | 45600 | 37800 | 3420 | 1800 |
| 11 | 2570 | 3640 | 6300 | 3100 | 13000 | 4210 | 24400 | 23400 | 56800 | 40400 | 3390 | 1740 |
| 12 | 2960 | 4920 | 6180 | 3080 | 13100 | 4230 | 31300 | 25000 | 25100 | 41600 | 3290 | 1670 |
| 13 | 2960 | 3890 | 5810 | 3060 | 13100 | 4410 | 27200 | 28000 | 20000 | 42100 | 3040 | 1640 |
| 14 | 2850 | 2960 | 5740 | 3020 | 13200 | 4560 | 24100 | 29200 | 18600 | 43200 | 2820 | 1820 |
| 15 | 2630 | 2590 | 5770 | 3000 | 13100 | 4740 | 23300 | 27900 | 18700 | 43300 | 2470 | 2200 |
| 16 | 3170 | 2440 | 5490 | 2960 | 13500 | 5000 | 22500 | 28600 | 20200 | 41500 | 2430 | 2340 |
| 17 | 3700 | 2350 | 4960 | 2930 | 14100 | 5930 | 21400 | 31600 | 26700 | 37800 | 2360 | 2350 |
| 18 | 3620 | 2360 | 4940 | 2910 | 12800 | 8570 | 20700 | 31300 | 17300 | 35300 | 2380 | 1860 |
| 19 | 3740 | 2350 | 4760 | 2900 | 12000 | 18000 | 22900 | 30800 | 14300 | 32400 | 2330 | 1570 |
| 20 | 4280 | 3090 | 4400 | 2870 | 12000 | 22400 | 24900 | 30500 | 13400 | 32200 | 2290 | 1450 |
| 21 | 4980 | 2960 | 3510 | 2850 | 11900 | 19300 | 29300 | 31800 | 24500 | 28900 | 2140 | 1400 |
| 22 | 4750 | 3070 | 2610 | 2800 | 11100 | 26900 | 31200 | 30400 | 43400 | 25100 | 2310 | 1370 |
| 23 | 4480 | 3310 | 2040 | 2740 | 10200 | 29000 | 31300 | 29700 | 32600 | 23000 | 2200 | 1370 |
| 24 | 3910 | 2920 | 1940 | 2700 | 7430 | 25700 | 29300 | 28200 | 18100 | 21100 | 2370 | 1340 |
| 25 | 4120 | 2410 | 1900 | 2670 | 6350 | 32400 | 27500 | 27100 | 16400 | 17600 | 2510 | 1290 |
| 26 | 4080 | 2210 | 1890 | 2650 | 5980 | 33100 | 28600 | 27000 | 16500 | 13500 | 2540 | 1270 |
| 27 | 3430 | 3180 | 1880 | 2660 | 5060 | 33300 | 30400 | 29200 | 19600 | 9560 | 2620 | 1240 |
| 28 | 3040 | 7500 | 1880 | 2670 | 4620 | 31100 | 33800 | 32900 | 23600 | 8080 | 2750 | 1220 |
| 29 | 2930 | 13100 | 1890 | 2680 | 4420 | 24800 | 37600 | 29900 | 29400 | 6760 | 2770 | 1210 |
| 30 | 2870 | 8670 | 1890 | 2720 | --- | 23700 | 55100 | 28000 | 28200 | 6100 | 2790 | 1200 |
| 31 | 2490 | --- | 1880 | 2770 | --- | 22600 | --- | 27200 | --- | 5200 | 2750 | --- |
| TOTAL | 106620 | 101700 | 137720 | 84210 | 265590 | 430570 | 879500 | 935300 | 713400 | 853500 | 94320 | 56130 |
| MEAN | 3439 | 3390 | 4443 | 2716 | 9158 | 13890 | 29320 | 30170 | 23780 | 27530 | 3043 | 1871 |
| MAX | 5740 | 13100 | 6720 | 3100 | 14100 | 33300 | 55100 | 58100 | 56800 | 43300 | 4910 | 2720 |
| MIN | 1050 | 2000 | 1880 | 1910 | 2850 | 4120 | 18200 | 23400 | 13100 | 5200 | 2140 | 1200 |
| AC-FT | 211500 | 201700 | 273200 | 167000 | 526300 | 854000 | 1744000 | 1855000 | 1415000 | 1693000 | 187100 | 111300 |

CAL YR 1983 TOTAL 3346960 MEAN 9170 MAX 58600 MIN 1050 AC-FT 6639000
WTR YR 1984 TOTAL 4658560 MEAN 12730 MAX 58100 MIN 1050 AC-FT 9240000

### 06892350 KANSAS RIVER AT DESOTO, KS--Continued
(National stream-quality accounting network station)

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1981.
WATER TEMPERATURES: October 1974 To September 1976, October 1977 to September 1981.

### CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | BARO-METRIC PRES-SURE (MM OF HG) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 13... | 11:40 | 3090 | 760 | 8.4 | 11.5 | 10.2 | 739 | -- | -- |
| NOV 07... | 14:55 | 2070 | 760 | 8.4 | 14.5 | -- | -- | -- | -- |
| 22... | 10:40 | 3120 | 685 | 8.5 | 11.0 | -- | -- | -- | -- |
| JAN 04... | 13:35 | 2080 | 823 | 7.6 | 0.5 | 11.5 | 743 | K470 | 200 |
| FEB 14... | 11:50 | 13100 | 565 | 8.1 | 7.0 | 13.2 | 734 | 140 | 260 |
| MAR 09... | 10:05 | 4810 | 685 | 8.8 | 3.0 | -- | -- | -- | -- |
| 30... | 12:00 | 24600 | 420 | 8.2 | 7.0 | -- | -- | -- | -- |
| APR 17... | 10:50 | 21000 | 483 | 9.1 | 11.5 | -- | -- | -- | -- |
| MAY 31... | 10:10 | 26900 | 440 | 8.1 | 19.0 | -- | -- | -- | -- |
| JUN 28... | 11:25 | 24400 | 458 | 7.9 | 27.5 | -- | -- | -- | -- |
| JUL 09... | 11:10 | 36800 | 314 | 7.9 | 25.5 | 8.6 | 737 | K880 | 1200 |
| AUG 09... | 10:20 | 3460 | 954 | 8.4 | 26.0 | 6.8 | 736 | 700 | 240 |
| SEP 10... | 10:40 | 1860 | 840 | 8.3 | 24.5 | -- | -- | -- | -- |

| DATE | TUR-BID-ITY (NTU) | HARD-NESS (MG/L AS CACO3) | HARD-NESS NONCAR-BONATE (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY LAB (MG/L AS CACO3) | CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) | SULFATE DIS-SOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 13... | 23 | 230 | 234 | 67 | 16 | 72 | 2 | 8.9 | 167 | 1.3 | 110 |
| JAN 04... | 6.4 | 330 | 333 | 97 | 22 | 72 | 2 | 7.1 | 257 | 12 | 130 |
| FEB 14... | 62 | 220 | 218 | 64 | 14 | 28 | 0.9 | 7.0 | 186 | 2.8 | 69 |
| JUL 09... | 170 | 120 | 125 | 38 | 7.2 | 12 | 0.5 | 5.9 | 100 | 3.2 | 37 |
| AUG 09... | 20 | 200 | 198 | 51 | 17 | 79 | 3 | 8.3 | 131 | 1 | 110 |

| DATE | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) | PHOS-PHORUS, TOTAL (MG/L AS P) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 13... | 75 | 0.4 | 7.6 | 439 | 0.6 | 3660 | 0.61 | 1.9 | 0.32 | 0.17 |
| JAN 04... | 85 | 0.3 | 14 | 600 | 0.82 | 3370 | 1.40 | 1.0 | 0.28 | 0.26 |
| FEB 14... | 25 | 0.4 | 11 | 336 | 0.46 | 11900 | 1.30 | 1.0 | 0.32 | 0.15 |
| JUL 09... | 11 | 0.3 | 10 | 183 | 0.25 | 18200 | 1.80 | 1.5 | 0.46 | 0.13 |
| AUG 09... | 100 | 0.3 | 5.7 | 465 | 0.63 | 4340 | <0.10 | 1.3 | 0.21 | 0.04 |

K Results based on colony count outside the acceptable range (non-ideal colony count).

## 06892350 KANSAS RIVER AT DESOTO, KS--Continued
(National stream-quality accounting network station)

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | ALUMINUM, DISSOLVED (UG/L AS AL) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, DISSOLVED (UG/L AS BA) | BERYLLIUM, DISSOLVED (UG/L AS BE) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM, DISSOLVED (UG/L AS CR) | COBALT, DISSOLVED (UG/L AS CO) | COPPER, DISSOLVED (UG/L AS CU) | IRON, DISSOLVED (UG/L AS FE) | LEAD, DISSOLVED (UG/L AS PB) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 13... | 40 | 4 | 240 | <0.5 | 1 | <1 | <3 | 4 | 29 | 1 |
| FEB 14... | 30 | 2 | 130 | <0.5 | <1 | <1 | <3 | 6 | 12 | <1 |
| AUG 09... | -- | 1 | 160 | 2 | 3 | 1 | <3 | 12 | 120 | 6 |

| DATE | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY DISSOLVED (UG/L AS HG) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | STRONTIUM, DISSOLVED (UG/L AS SR) | VANADIUM, DISSOLVED (UG/L AS V) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 13... | 41 | 5 | <0.1 | <10 | 4 | 1 | <1 | 590 | 6 | 6 |
| FEB 14... | 19 | 3 | <0.1 | <10 | <1 | 1 | <1 | 490 | <6 | 4 |
| AUG 09... | 30 | 16 | 5.5 | <10 | 6 | -- | <4 | 580 | <6 | 18 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|
| OCT 13... | 11:40 | 3090 | 169 | 1410 | 31 |
| JAN 04... | 13:35 | 2080 | 16 | 90 | 98 |
| FEB 14... | 11:50 | 13100 | 282 | 9970 | 85 |
| MAY 01... | 11:00 | 64200 | E2860 | -- | -- |
| JUL 09... | 11:10 | 36800 | 928 | 92200 | 61 |
| AUG 09... | 10:20 | 3460 | 89 | 831 | 88 |
| 23... | 09:30 | 2540 | 74 | 507 | 86 |

### PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM |
|---|---|---|---|---|---|---|---|
| OCT 13... | -- | -- | -- | 31 | 35 | 42 | 100 |
| FEB 14... | -- | -- | -- | 91 | 96 | 100 | -- |
| JUL 09... | 22 | 25 | 31 | 67 | 71 | 79 | 100 |

E Estimated value.

## 06893080 BLUE RIVER NEAR STANLEY, KS

LOCATION.--Lat 38 deg 48 min 45 sec, long 94 deg 40 min 31 sec, in SW1/4 SW1/4 SE1/4 sec.19, T.14 S., R.25 E., Johnson County, Hydrologic Unit 10300001, on left bank at downstream side of northbound bridge on U.S. Highway 69, 0.5 mi downstream from confluence of Wolf and Coffee Creeks, and 3.0 mi south of Stanley.

DRAINAGE AREA.--46 sq mi, approximately.

PERIOD OF RECORD.--Annual maximum, water years 1970-74. October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 886.05 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1974, crest-stage gage at same site and datum.

REMARKS.--Records good except those for winter period, which are fair.

AVERAGE DISCHARGE.--10 years, 26.3 cu ft per sec, 19,050 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 cu ft per sec June 9, 1984, gage height, 18.98 ft, from rating curve extended above 5,000 cu ft per sec on basis of contracted-opening measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 18 | 2230 | 2,180 | 10.11 | May 27 | 1430 | 1,300 | 8.25 |
| Apr. 12 | 0245 | 3,320 | 12.08 | June 9 | 0615 | *14,300 | 18.98 |
| Apr. 29 | 1700 | 2,200 | 10.14 | | | | |

No flow Oct. 1-18, Aug. 30 to Sept. 13, Sept. 26-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | 24 | 17 | 7.2 | 13 | 24 | 38 | 63 | 14 | 3.8 | .51 | .00 |
| 2 | .00 | 34 | 15 | 6.4 | 13 | 21 | 270 | 53 | 11 | 3.2 | .51 | .00 |
| 3 | .00 | 25 | 41 | 6.3 | 13 | 19 | 218 | 62 | 9.8 | 2.7 | .51 | .00 |
| 4 | .00 | 21 | 57 | 6.8 | 12 | 54 | 87 | 39 | 8.5 | 122 | .49 | .00 |
| 5 | .00 | 9.4 | 36 | 8.2 | 9.7 | 35 | 59 | 30 | 6.8 | 37 | .42 | .00 |
| 6 | .00 | 6.4 | 29 | 25 | 7.5 | 24 | 45 | 28 | 5.6 | 14 | .40 | .00 |
| 7 | .00 | 4.6 | 20 | 43 | 7.1 | 23 | 110 | 30 | 4.8 | 98 | .37 | .00 |
| 8 | .00 | 4.0 | 17 | 52 | 7.3 | 21 | 630 | 22 | 9.2 | 38 | .37 | .00 |
| 9 | .00 | 6.6 | 15 | 51 | 8.3 | 17 | 176 | 18 | 4260 | 14 | .37 | .00 |
| 10 | .00 | 16 | 13 | 25 | 11 | 17 | 95 | 16 | 393 | 7.2 | .37 | .00 |
| 11 | .00 | 12 | 20 | 18 | 24 | 17 | 77 | 14 | 118 | 167 | .36 | .00 |
| 12 | .00 | 7.6 | 20 | 15 | 89 | 16 | 944 | 13 | 69 | 34 | .32 | .00 |
| 13 | .00 | 6.0 | 15 | 12 | 31 | 19 | 113 | 12 | 46 | 20 | .28 | .00 |
| 14 | .00 | 4.7 | 13 | 10 | 23 | 36 | 70 | 10 | 33 | 14 | .28 | .42 |
| 15 | .00 | 3.8 | 11 | 9.5 | 19 | 57 | 58 | 8.9 | 25 | 11 | .24 | .19 |
| 16 | .00 | 2.7 | 9.0 | 9.0 | 23 | 66 | 50 | 8.2 | 24 | 8.7 | .23 | .41 |
| 17 | .00 | 2.8 | 8.1 | 8.0 | 22 | 295 | 39 | 7.6 | 15 | 7.5 | .23 | .38 |
| 18 | .00 | 2.9 | 7.3 | 7.0 | 44 | 516 | 33 | 7.0 | 12 | 5.3 | .20 | .29 |
| 19 | .15 | 3.7 | 7.8 | 6.6 | 33 | 665 | 28 | 7.2 | 9.5 | 3.2 | .18 | .22 |
| 20 | .14 | 3.8 | 8.1 | 6.6 | 23 | 265 | 30 | 17 | 54 | 2.7 | .09 | .19 |
| 21 | 9.2 | 3.3 | 8.2 | 6.8 | 21 | 316 | 251 | 9.8 | 159 | 1.8 | .08 | .12 |
| 22 | 6.5 | 11 | 7.0 | 7.8 | 19 | 146 | 231 | 8.1 | 80 | 1.2 | .10 | .09 |
| 23 | 3.6 | 22 | 6.5 | 8.0 | 18 | 82 | 93 | 7.6 | 31 | .91 | .08 | .08 |
| 24 | 2.2 | 15 | 6.5 | 8.3 | 17 | 133 | 58 | 6.0 | 16 | .76 | .05 | .05 |
| 25 | 1.7 | 8.6 | 7.0 | 8.8 | 14 | 101 | 44 | 5.6 | 11 | .67 | .03 | .01 |
| 26 | 2.7 | 6.6 | 7.0 | 16 | 17 | 247 | 35 | 5.8 | 8.5 | .64 | .02 | .00 |
| 27 | 3.1 | 214 | 7.0 | 20 | 41 | 155 | 30 | 320 | 14 | .57 | .03 | .00 |
| 28 | 2.9 | 81 | 7.0 | 16 | 44 | 88 | 23 | 106 | 8.4 | .56 | .02 | .00 |
| 29 | 2.4 | 32 | 6.5 | 23 | 26 | 64 | 415 | 40 | 5.6 | .56 | .01 | .00 |
| 30 | 15 | 24 | 6.5 | 23 | --- | 49 | 152 | 25 | 4.6 | .51 | .00 | .00 |
| 31 | 25 | --- | 7.2 | 14 | --- | 42 | --- | 16 | --- | .51 | .00 | --- |
| TOTAL | 74.59 | 618.5 | 455.7 | 484.3 | 649.9 | 3682 | 4500 | 1017.8 | 5466.3 | 621.99 | 7.15 | 2.45 |
| MEAN | 2.41 | 20.6 | 14.7 | 13.6 | 22.4 | 119 | 150 | 32.8 | 182 | 20.1 | .23 | .082 |
| MAX | 25 | 214 | 57 | 52 | 89 | 665 | 944 | 320 | 4260 | 167 | .51 | .42 |
| MIN | .00 | 2.7 | 6.5 | 6.3 | 7.1 | 17 | 23 | 5.6 | 4.6 | .51 | .00 | .00 |
| AC-FT | 148 | 1230 | 904 | 961 | 1290 | 7300 | 8930 | 2020 | 10840 | 1230 | 14 | 4.9 |

CAL YR 1983 TOTAL 14437.74 MEAN 39.6 MAX 1800 MIN .00 AC-FT 28640
WTR YR 1984 TOTAL 17580.68 MEAN 48.0 MAX 4260 MIN .00 AC-FT 34870

## 06893300 INDIAN CREEK AT OVERLAND PARK, KS

LOCATION.--Lat 38 deg 56 min 30 sec, long 94 deg 40 min 10 sec, in NW1/4 NE1/4 NE1/4 sec.7, T.13 S., R.25 E., Johnson County, Hydrologic Unit 10300001, at downstream side of highway bridge on Marty Street in Overland Park.

DRAINAGE AREA.--26.6 sq mi.

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 856.88 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to May 17, 1977, water-stage recorder at site 700 ft downstream at same datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--21 years, 26.2 cu ft per sec, 18,980 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,800 cu ft per sec June 9, 1984, gage height, 17.78 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 18 | 2200 | 1,150 | 9.13 | June 9 | 0300 | *12,800 | 17.78 |
| Apr. 12 | 0115 | 2,070 | 10.37 | June 20 | 1930 | 1,390 | 9.29 |
| May 27 | 1345 | 2,060 | 10.35 | June 22 | 0415 | 2,600 | 10.79 |

Minimum discharge, 3.2 cu ft per sec Aug. 2, 3, Sept. 23.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.1 | 40 | 20 | 12 | 15 | 17 | 21 | 30 | 14 | 14 | 4.9 | 6.0 |
| 2 | 5.7 | 100 | 24 | 17 | 15 | 17 | 214 | 52 | 14 | 12 | 4.4 | 8.1 |
| 3 | 6.4 | 80 | 73 | 26 | 15 | 16 | 98 | 37 | 14 | 11 | 4.0 | 6.0 |
| 4 | 12 | 50 | 32 | 36 | 15 | 68 | 45 | 27 | 12 | 99 | 4.4 | 6.6 |
| 5 | 11 | 35 | 25 | 45 | 14 | 23 | 33 | 23 | 11 | 33 | 4.9 | 5.4 |
| 6 | 6.1 | 24 | 21 | 46 | 13 | 20 | 27 | 26 | 11 | 19 | 4.9 | 5.4 |
| 7 | 5.1 | 15 | 19 | 35 | 13 | 20 | 96 | 25 | 9.8 | 27 | 4.9 | 6.0 |
| 8 | 4.6 | 10 | 17 | 32 | 14 | 20 | 337 | 19 | 600 | 19 | 21 | 66 |
| 9 | 5.1 | 20 | 17 | 29 | 17 | 16 | 79 | 18 | 4340 | 11 | 6.6 | 14 |
| 10 | 5.7 | 50 | 16 | 21 | 17 | 17 | 48 | 18 | 221 | 9.8 | 5.4 | 8.9 |
| 11 | 81 | 40 | 28 | 18 | 21 | 16 | 124 | 17 | 170 | 20 | 4.0 | 6.6 |
| 12 | 25 | 30 | 19 | 17 | 24 | 18 | 584 | 16 | 165 | 8.7 | 4.9 | 6.0 |
| 13 | 11 | 24 | 17 | 16 | 16 | 25 | 62 | 16 | 132 | 7.6 | 5.4 | 19 |
| 14 | 9.0 | 18 | 16 | 15 | 14 | 29 | 47 | 16 | 117 | 6.9 | 4.9 | 310 |
| 15 | 8.2 | 15 | 15 | 14 | 13 | 65 | 40 | 15 | 315 | 6.6 | 4.4 | 30 |
| 16 | 8.6 | 10 | 13 | 13 | 25 | 59 | 37 | 14 | 82 | 6.6 | 4.9 | 10 |
| 17 | 8.6 | 8.0 | 11 | 11 | 15 | 161 | 31 | 14 | 53 | 6.0 | 4.9 | 7.3 |
| 18 | 8.6 | 7.7 | 9.0 | 10 | 35 | 287 | 28 | 14 | 46 | 5.4 | 6.0 | 6.0 |
| 19 | 89 | 20 | 8.0 | 10 | 20 | 243 | 26 | 50 | 36 | 5.4 | 56 | 5.8 |
| 20 | 43 | 9.2 | 7.0 | 10 | 16 | 114 | 40 | 34 | 448 | 6.0 | 8.1 | 4.4 |
| 21 | 146 | 8.1 | 7.0 | 10 | 15 | 119 | 133 | 17 | 271 | 5.4 | 17 | 4.5 |
| 22 | 60 | 73 | 7.0 | 11 | 15 | 61 | 78 | 18 | 487 | 5.4 | 11 | 4.5 |
| 23 | 35 | 53 | 7.0 | 14 | 14 | 41 | 45 | 15 | 76 | 5.7 | 5.4 | 4.5 |
| 24 | 20 | 25 | 7.0 | 17 | 14 | 81 | 35 | 13 | 54 | 5.4 | 4.9 | 6.2 |
| 25 | 10 | 17 | 7.0 | 19 | 13 | 43 | 30 | 15 | 42 | 6.9 | 4.9 | 5.9 |
| 26 | 15 | 25 | 7.0 | 20 | 23 | 129 | 27 | 13 | 33 | 6.0 | 4.9 | 5.1 |
| 27 | 20 | 276 | 8.0 | 17 | 42 | 63 | 28 | 480 | 35 | 4.9 | 13 | 6.0 |
| 28 | 15 | 55 | 8.0 | 16 | 24 | 41 | 22 | 47 | 25 | 4.9 | 5.4 | 6.0 |
| 29 | 12 | 30 | 7.5 | 18 | 19 | 32 | 194 | 24 | 28 | 4.9 | 4.9 | 6.0 |
| 30 | 25 | 25 | 7.5 | 18 | --- | 27 | 48 | 18 | 16 | 4.4 | 5.4 | 6.0 |
| 31 | 50 | --- | 9.0 | 16 | --- | 23 | --- | 16 | --- | 4.4 | 5.4 | --- |
| TOTAL | 766.8 | 1193.0 | 489.0 | 609 | 526 | 1911 | 2657 | 1157 | 7877.8 | 394.3 | 251.1 | 592.2 |
| MEAN | 24.7 | 39.8 | 15.8 | 19.6 | 18.1 | 61.6 | 88.6 | 37.3 | 263 | 12.7 | 8.10 | 19.7 |
| MAX | 146 | 276 | 73 | 46 | 42 | 287 | 584 | 480 | 4340 | 99 | 56 | 310 |
| MIN | 4.6 | 7.7 | 7.0 | 10 | 13 | 16 | 21 | 13 | 9.8 | 4.4 | 4.0 | 4.4 |
| AC-FT | 1520 | 2370 | 970 | 1210 | 1040 | 3790 | 5270 | 2290 | 15630 | 782 | 498 | 1170 |

CAL YR 1983 TOTAL 12981.6 MEAN 35.6 MAX 1460 MIN 3.8 AC-FT 25750
WTR YR 1984 TOTAL 18424.2 MEAN 50.3 MAX 4340 MIN 4.0 AC-FT 36540

## 06910800 MARAIS DES CYGNES RIVER NEAR READING, KS

LOCATION.--Lat 38 deg 34 min 00 sec, long 95 deg 57 min 50 sec, in SE1/4 SW1/4 sec.15, T.17 S., R.13 E., Lyon County, Hydrologic Unit 10290101, at downstream side of highway bridge, 1.9 mi downstream from confluence of One Hundred and Fortytwo Mile Creek and Elm Creek, 4.3 mi upstream from Duck Creek, 3.0 mi north of Reading, and at mile 467.0.

DRAINAGE AREA.--177 sq mi.

PERIOD OF RECORD.--May 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,042.32 ft National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records good.

AVERAGE DISCHARGE.--15 years, 116 cu ft per sec, 84,040 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 67,400 cu ft per sec May 29, 1982, gage height, 27.47 ft; no flow at times in 1976-78, 1980, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 19 | 0800 | 4,900 | 19.39 | June 7 | 1200 | 3,650 | 15.51 |
| Mar. 21 | 0500 | 3,300 | 14.37 | June 9 | 1500 | *7,260 | 22.03 |
| Apr. 30 | 0500 | 3,770 | 15.89 | | | | |

Minimum, 0.44 cu ft per sec Aug. 20, 21, Sept. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .72 | 2.2 | 37 | 9.8 | 37 | 33 | 118 | 291 | 31 | 44 | 2.0 | 1.3 |
| 2 | .75 | 2.2 | 32 | 11 | 33 | 31 | 383 | 386 | 28 | 37 | 1.9 | 1.9 |
| 3 | .80 | 2.0 | 31 | 11 | 31 | 29 | 1110 | 604 | 25 | 34 | 1.8 | 1.4 |
| 4 | .92 | 1.8 | 37 | 12 | 27 | 376 | 348 | 231 | 24 | 31 | 1.8 | .69 |
| 5 | 1.1 | 1.6 | 39 | 15 | 20 | 225 | 190 | 155 | 23 | 28 | 1.5 | .46 |
| 6 | 1.2 | 1.4 | 37 | 61 | 18 | 88 | 146 | 135 | 22 | 28 | 1.3 | .57 |
| 7 | 1.3 | 1.1 | 32 | 278 | 15 | 64 | 600 | 136 | 1670 | 28 | 1.3 | .66 |
| 8 | 1.4 | 1.1 | 30 | 309 | 14 | 52 | 2500 | 116 | 243 | 28 | 1.5 | .73 |
| 9 | 1.4 | 2.0 | 30 | 217 | 17 | 44 | 500 | 92 | 4440 | 25 | 1.6 | .80 |
| 10 | 1.5 | 16 | 29 | 99 | 20 | 40 | 300 | 84 | 3350 | 22 | 1.4 | .80 |
| 11 | 3.3 | 61 | 27 | 58 | 24 | 39 | 200 | 75 | 384 | 17 | 1.2 | .80 |
| 12 | 3.3 | 38 | 27 | 45 | 24 | 39 | 500 | 68 | 212 | 14 | 1.2 | .88 |
| 13 | 3.0 | 20 | 26 | 36 | 22 | 42 | 200 | 62 | 1290 | 12 | 1.1 | .98 |
| 14 | 1.8 | 9.5 | 21 | 30 | 19 | 48 | 100 | 56 | 359 | 12 | 1.0 | 1.1 |
| 15 | 1.1 | 5.6 | 21 | 23 | 17 | 50 | 90 | 50 | 169 | 10 | .96 | 1.2 |
| 16 | 1.0 | 4.1 | 17 | 20 | 19 | 54 | 80 | 48 | 126 | 9.2 | .88 | 1.2 |
| 17 | .75 | 3.3 | 14 | 20 | 30 | 924 | 75 | 45 | 90 | 8.7 | .87 | 1.2 |
| 18 | .48 | 2.3 | 11 | 16 | 39 | 925 | 72 | 41 | 173 | 7.8 | .76 | 1.2 |
| 19 | 1.9 | 2.0 | 8.9 | 13 | 42 | 3300 | 70 | 39 | 79 | 7.0 | .58 | 1.3 |
| 20 | 2.0 | 2.1 | 7.4 | 12 | 50 | 939 | 70 | 614 | 62 | 6.1 | .47 | 1.4 |
| 21 | 4.7 | 2.2 | 7.0 | 12 | 36 | 1930 | 2000 | 167 | 39 | 5.3 | .72 | 1.3 |
| 22 | 3.8 | 2.2 | 7.0 | 12 | 30 | 550 | 500 | 90 | 200 | 5.0 | 1.2 | 1.3 |
| 23 | 2.7 | 8.3 | 7.0 | 13 | 28 | 250 | 250 | 66 | 148 | 4.3 | 1.1 | 1.3 |
| 24 | 2.3 | 6.7 | 7.0 | 17 | 25 | 702 | 150 | 55 | 81 | 3.6 | 1.0 | 1.3 |
| 25 | 2.0 | 4.5 | 7.0 | 19 | 23 | 479 | 127 | 46 | 56 | 3.4 | .96 | 1.1 |
| 26 | 1.4 | 4.0 | 8.0 | 29 | 22 | 873 | 114 | 40 | 46 | 3.3 | .88 | .90 |
| 27 | .79 | 535 | 9.2 | 47 | 32 | 874 | 104 | 51 | 445 | 3.3 | .90 | .87 |
| 28 | .64 | 666 | 11 | 55 | 42 | 302 | 105 | 69 | 188 | 2.8 | 1.4 | .87 |
| 29 | .90 | 105 | 11 | 55 | 40 | 277 | 420 | 61 | 73 | 2.7 | 1.7 | .84 |
| 30 | 2.0 | 51 | 9.5 | 57 | --- | 182 | 1930 | 43 | 54 | 2.3 | 1.7 | .73 |
| 31 | 2.2 | --- | 6.3 | 47 | --- | 136 | --- | 35 | --- | 2.1 | 1.4 | --- |
| TOTAL | 53.15 | 1564.2 | 606.3 | 1658.8 | 796 | 13897 | 13352 | 4051 | 14150 | 446.9 | 38.08 | 31.08 |
| MEAN | 1.71 | 52.1 | 19.6 | 53.5 | 27.4 | 448 | 445 | 131 | 472 | 14.4 | 1.23 | 1.04 |
| MAX | 4.7 | 666 | 39 | 309 | 50 | 3300 | 2500 | 614 | 4440 | 44 | 2.0 | 1.9 |
| MIN | .48 | 1.1 | 7.0 | 9.8 | 14 | 29 | 70 | 35 | 22 | 2.1 | .47 | .46 |
| AC-FT | 105 | 3100 | 1200 | 3290 | 1580 | 27560 | 26480 | 8040 | 28070 | 886 | 76 | 62 |

CAL YR 1983 TOTAL 51067.01 MEAN 140 MAX 4260 MIN .36 AC-FT 101300
WTR YR 1984 TOTAL 50644.51 MEAN 138 MAX 4440 MIN .46 AC-FT 100500

## 06910997 MELVERN LAKE NEAR MELVERN, KS

LOCATION.--Lat 38 deg 30 min 34 sec, long 95 deg 42 min 36 sec, in NW1/4 SW1/4 SW1/4 sec.1, T.18 S., R.15 E., Osage County, Hydrologic Unit 10290101, in control tower of Melvern Dam on Marais des Cygnes River, 4.0 mi west of Melvern, and at mile 447.7.

DRAINAGE AREA.--349 sq mi.

PERIOD OF RECORD.--November 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began in July 1972. Total capacity, 920,600 acre-ft, consisting of the following: Dead storage, 26 acre-ft below elevation 962.0 ft; conservation pool, 154,400 acre-ft between elevations 962.0 ft and 1,036.0 ft; flood control pool, 258,600 acre-ft between elevations 1,036.0 ft and 1,057.0 ft; and surcharge pool, 507,600 acre-ft between elevations 1,057.0 ft and 1,073.0 ft. Reservoir is used to store water for flood control, irrigation and recreation.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,049.07 ft June 2, 1982, contents, 266,600 acre-ft; minimum since conservation pool first filled, 1,030.40 ft May 6, 1977, contents, 118,900 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,041.70 ft Apr. 13, contents, 197,700 acre-ft; minimum, 1,033.90 ft Sept. 30, contents, 140,300 acre-ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)
(Computed by Corps of Engineers in 1963)

| | | | |
|---|---|---|---|
| 1,030 | 116,600 | 1,040 | 184,000 |
| 1,035 | 147,600 | 1,045 | 226,700 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1034.16 | 1034.10 | 1034.80 | 1034.96 | 1035.64 | 1036.05 | 1039.80 | 1038.30 | 1036.30 | 1036.22 | 1035.36 | 1034.56 |
| 2 | 1034.14 | 1034.10 | 1034.79 | 1034.96 | 1035.65 | 1036.08 | 1039.67 | 1038.35 | 1036.28 | 1036.10 | 1035.34 | 1034.57 |
| 3 | 1034.11 | 1034.10 | 1034.89 | 1034.96 | 1035.66 | 1036.15 | 1040.05 | 1038.40 | 1036.25 | 1036.07 | 1035.31 | 1034.54 |
| 4 | 1034.10 | 1034.09 | 1034.90 | 1034.96 | 1035.67 | 1036.35 | 1040.07 | 1038.24 | 1036.21 | 1036.04 | 1035.28 | 1034.51 |
| 5 | 1034.08 | 1034.07 | 1034.96 | 1034.97 | 1035.66 | 1036.45 | 1040.02 | 1038.04 | 1036.20 | 1036.01 | 1035.26 | 1034.48 |
| 6 | 1034.06 | 1034.07 | 1034.95 | 1035.00 | 1035.65 | 1036.52 | 1039.74 | 1037.87 | 1036.15 | 1035.99 | 1035.25 | 1034.44 |
| 7 | 1034.04 | 1034.05 | 1034.95 | 1035.11 | 1035.66 | 1036.59 | 1039.58 | 1037.66 | 1036.55 | 1035.97 | 1035.25 | 1034.36 |
| 8 | 1034.03 | 1034.05 | 1034.95 | 1035.25 | 1035.66 | 1036.50 | 1040.55 | 1037.35 | 1036.82 | 1035.96 | 1035.23 | 1034.35 |
| 9 | 1034.00 | 1034.17 | 1034.94 | 1035.38 | 1035.69 | 1036.37 | 1040.92 | 1036.99 | 1039.15 | 1035.94 | 1035.20 | 1034.34 |
| 10 | 1033.98 | 1034.07 | 1034.95 | 1035.40 | 1035.70 | 1036.25 | 1040.95 | 1036.60 | 1040.84 | 1035.93 | 1035.16 | 1034.30 |
| 11 | 1034.08 | 1034.05 | 1034.97 | 1035.43 | 1035.73 | 1036.13 | 1041.16 | 1036.21 | 1040.99 | 1035.92 | 1035.14 | 1034.32 |
| 12 | 1034.05 | 1034.06 | 1034.95 | 1035.46 | 1035.74 | 1036.02 | 1041.56 | 1036.10 | 1040.92 | 1035.90 | 1035.11 | 1034.29 |
| 13 | 1034.01 | 1034.07 | 1034.97 | 1035.46 | 1035.74 | 1035.98 | 1041.56 | 1036.09 | 1040.93 | 1035.87 | 1035.08 | 1034.25 |
| 14 | 1033.98 | 1034.05 | 1034.98 | 1035.46 | 1035.72 | 1036.03 | 1041.49 | 1036.07 | 1040.55 | 1035.87 | 1035.06 | 1034.25 |
| 15 | 1033.95 | 1034.03 | 1034.95 | 1035.49 | 1035.78 | 1036.00 | 1041.10 | 1036.06 | 1040.09 | 1035.84 | 1035.04 | 1034.20 |
| 16 | 1033.96 | 1034.02 | 1034.93 | 1035.49 | 1035.82 | 1036.10 | 1040.46 | 1036.06 | 1039.60 | 1035.83 | 1035.01 | 1034.16 |
| 17 | 1033.92 | 1034.01 | 1034.93 | 1035.51 | 1035.78 | 1036.55 | 1039.81 | 1036.07 | 1039.12 | 1035.80 | 1034.98 | 1034.16 |
| 18 | 1033.90 | 1034.01 | 1034.93 | 1035.51 | 1035.92 | 1037.67 | 1039.14 | 1036.07 | 1038.62 | 1035.77 | 1034.94 | 1034.15 |
| 19 | 1034.08 | 1034.04 | 1034.93 | 1035.50 | 1035.87 | 1039.38 | 1038.43 | 1036.10 | 1038.12 | 1035.75 | 1034.91 | 1034.14 |
| 20 | 1034.13 | 1033.99 | 1034.95 | 1035.50 | 1035.87 | 1039.93 | 1038.04 | 1036.23 | 1037.59 | 1035.70 | 1034.88 | 1034.11 |
| 21 | 1034.18 | 1033.97 | 1034.98 | 1035.50 | 1035.88 | 1040.40 | 1038.82 | 1036.30 | 1037.44 | 1035.66 | 1034.90 | 1034.09 |
| 22 | 1034.16 | 1034.06 | 1034.97 | 1035.50 | 1035.89 | 1040.55 | 1039.06 | 1036.35 | 1037.65 | 1035.64 | 1034.89 | 1034.08 |
| 23 | 1034.15 | 1034.06 | 1034.97 | 1035.50 | 1035.90 | 1040.68 | 1038.97 | 1036.33 | 1037.81 | 1035.63 | 1034.85 | 1034.07 |
| 24 | 1034.14 | 1034.05 | 1034.96 | 1035.50 | 1035.89 | 1040.96 | 1038.78 | 1036.27 | 1037.83 | 1035.60 | 1034.80 | 1034.05 |
| 25 | 1034.12 | 1034.03 | 1034.95 | 1035.51 | 1035.87 | 1041.14 | 1038.60 | 1036.25 | 1037.70 | 1035.58 | 1034.77 | 1034.02 |
| 26 | 1034.10 | 1034.05 | 1034.95 | 1035.53 | 1035.92 | 1041.38 | 1038.45 | 1036.20 | 1037.40 | 1035.54 | 1034.75 | 1033.97 |
| 27 | 1034.08 | 1034.44 | 1034.96 | 1035.55 | 1035.97 | 1041.36 | 1038.21 | 1036.39 | 1037.21 | 1035.51 | 1034.72 | 1033.99 |
| 28 | 1034.05 | 1034.76 | 1034.97 | 1035.57 | 1036.00 | 1041.12 | 1038.00 | 1036.38 | 1037.05 | 1035.48 | 1034.70 | 1033.94 |
| 29 | 1034.04 | 1034.78 | 1034.97 | 1035.62 | 1036.03 | 1040.83 | 1037.94 | 1036.37 | 1036.78 | 1035.44 | 1034.66 | 1033.92 |
| 30 | 1034.08 | 1034.81 | 1034.98 | 1035.62 | --- | 1040.49 | 1038.34 | 1036.35 | 1036.50 | 1035.41 | 1034.64 | 1033.90 |
| 31 | 1034.07 | --- | 1034.95 | 1035.63 | --- | 1040.17 | --- | 1036.33 | --- | 1035.38 | 1034.61 | --- |
| MEAN | 1034.06 | 1034.14 | 1034.94 | 1035.38 | 1035.79 | 1038.13 | 1039.64 | 1036.72 | 1038.02 | 1035.79 | 1035.00 | 1034.22 |
| MAX | 1034.18 | 1034.81 | 1034.98 | 1035.63 | 1036.03 | 1041.38 | 1041.56 | 1038.40 | 1040.99 | 1036.22 | 1035.36 | 1034.57 |
| MIN | 1033.90 | 1033.97 | 1034.79 | 1034.96 | 1035.64 | 1035.98 | 1037.94 | 1036.06 | 1036.15 | 1035.38 | 1034.61 | 1033.90 |
| (+) | 141,400 | 146,300 | 147,200 | 151,800 | 154,600 | 185,300 | 171,200 | 156,700 | 157,900 | 150,100 | 145,000 | 140,300 |
| (#) | -700 | +4,900 | +900 | +4,600 | +2,800 | +30,700 | -14,100 | -14,500 | +1,200 | -7,800 | -5,100 | -6,700 |

CAL YR 1983 ........................ (#) +2,600
WTR YR 1984 ........................ (#) -1,800

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 06911500 SALT CREEK NEAR LYNDON, KS

LOCATION.--Lat 38 deg 36 min 32 sec, long 95 deg 38 min 17 sec, in SW1/4 SW1/4 SW1/4 sec.36, T.16 S., R.16 E., Osage County, Hydrologic Unit 10290101, at downstream side of highway bridge, 2.5 mi east of Lyndon, and at mile 12.6.

DRAINAGE AREA.--111 sq mi.

PERIOD OF RECORD.--September 1939 to current year.

REVISED RECORDS.--WSP 1176: 1944-45(M). WSP 1340: 1943(M), 1946-47, 1948(P), 1949-50.

GAGE.--Water-stage recorder. Datum of gage is 955.78 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 25, 1957, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--43 years, 61.9 cu ft per sec, 44,850 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,400 cu ft per sec July 11, 1951, gage height, 17.0 ft, from floodmark, from rating curve extended above 6,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1935 reached a stage a few feet higher than that of July 11, 1951, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 18 | 2200 | 4,410 | 10.85 | June 9 | 2100 | *7,400 | 13.47 |

No flow Sept. 23-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .12 | 1.3 | 14 | 6.0 | 22 | 26 | 50 | 101 | 8.1 | 8.9 | .50 | .01 |
| 2 | .10 | 1.3 | 11 | 6.4 | 20 | 23 | 142 | 214 | 6.7 | 6.8 | .50 | .08 |
| 3 | .08 | 1.4 | 13 | 7.0 | 19 | 20 | 822 | 319 | 6.0 | 5.3 | .45 | .05 |
| 4 | .12 | 1.4 | 13 | 7.2 | 17 | 215 | 223 | 125 | 5.9 | 4.4 | .45 | .05 |
| 5 | .16 | 1.3 | 13 | 11 | 13 | 142 | 107 | 74 | 5.1 | 4.0 | .45 | .08 |
| 6 | .16 | 1.3 | 11 | 24 | 10 | 57 | 73 | 62 | 5.0 | 4.2 | .40 | .09 |
| 7 | .16 | 1.3 | 10 | 91 | 9.5 | 42 | 97 | 61 | 4.7 | 3.7 | .40 | .07 |
| 8 | .16 | 1.3 | 10 | 188 | 9.2 | 34 | 1510 | 47 | 7.5 | 3.8 | .40 | .08 |
| 9 | .16 | 1.3 | 11 | 166 | 11 | 26 | 684 | 38 | 2990 | 3.4 | .40 | .10 |
| 10 | .16 | 4.2 | 11 | 65 | 15 | 23 | 201 | 31 | 2450 | 3.5 | .35 | .10 |
| 11 | .27 | 13 | 11 | 35 | 16 | 22 | 188 | 27 | 200 | 5.5 | .35 | .07 |
| 12 | .33 | 4.2 | 11 | 26 | 16 | 23 | 979 | 24 | 88 | 3.6 | .35 | .06 |
| 13 | .33 | 1.4 | 11 | 18 | 15 | 26 | 175 | 23 | 392 | 2.3 | .35 | .03 |
| 14 | .29 | .77 | 9.9 | 14 | 13 | 32 | 93 | 20 | 181 | 1.8 | .31 | .05 |
| 15 | .21 | .66 | 8.8 | 11 | 12 | 36 | 68 | 18 | 63 | 1.7 | .27 | .07 |
| 16 | .20 | .65 | 7.4 | 11 | 43 | 35 | 58 | 18 | 38 | 1.7 | .26 | .07 |
| 17 | .18 | .82 | 5.8 | 11 | 39 | 513 | 48 | 16 | 27 | 2.0 | .26 | .07 |
| 18 | .16 | .84 | 5.5 | 11 | 36 | 1190 | 39 | 14 | 20 | 1.9 | .26 | .07 |
| 19 | .66 | .85 | 5.5 | 10 | 40 | 2680 | 33 | 12 | 16 | 1.7 | .26 | .07 |
| 20 | .94 | .87 | 5.0 | 10 | 25 | 647 | 60 | 16 | 15 | 1.5 | .22 | .05 |
| 21 | 1.3 | .87 | 4.0 | 10 | 20 | 735 | 745 | 15 | 22 | 1.3 | .28 | .02 |
| 22 | 3.6 | 1.7 | 3.5 | 11 | 17 | 182 | 327 | 14 | 59 | 1.2 | .31 | .01 |
| 23 | 2.8 | 2.4 | 3.5 | 11 | 15 | 111 | 135 | 11 | 25 | 1.0 | .31 | .00 |
| 24 | 1.4 | 2.7 | 3.5 | 11 | 13 | 330 | 88 | 9.7 | 16 | .92 | .26 | .00 |
| 25 | .95 | 1.8 | 3.5 | 12 | 12 | 251 | 65 | 8.7 | 11 | .92 | .20 | .00 |
| 26 | .77 | 1.8 | 5.0 | 18 | 16 | 458 | 53 | 7.6 | 8.8 | .80 | .19 | .00 |
| 27 | .71 | 394 | 5.0 | 25 | 38 | 410 | 49 | 15 | 8.0 | .80 | .14 | .00 |
| 28 | .76 | 342 | 4.6 | 29 | 46 | 147 | 36 | 34 | 20 | .80 | .13 | .00 |
| 29 | .79 | 63 | 4.6 | 36 | 35 | 105 | 154 | 24 | 37 | .70 | .09 | .00 |
| 30 | 1.5 | 25 | 4.6 | 38 | --- | 74 | 300 | 14 | 12 | .60 | .05 | .00 |
| 31 | 1.4 | --- | 5.2 | 27 | --- | 57 | --- | 10 | --- | .50 | .02 | --- |
| TOTAL | 20.93 | 875.43 | 244.9 | 956.6 | 612.7 | 8672 | 7602 | 1423.0 | 6747.7 | 81.24 | 9.17 | 1.35 |
| MEAN | .68 | 29.2 | 7.90 | 30.9 | 21.1 | 280 | 253 | 45.9 | 225 | 2.62 | .30 | .045 |
| MAX | 3.6 | 394 | 14 | 188 | 46 | 2680 | 1510 | 319 | 2990 | 8.9 | .50 | .10 |
| MIN | .08 | .65 | 3.5 | 6.0 | 9.2 | 20 | 33 | 7.6 | 4.7 | .50 | .02 | .00 |
| AC-FT | 42 | 1740 | 486 | 1900 | 1220 | 17200 | 15080 | 2820 | 13380 | 161 | 18 | 2.7 |

CAL YR 1983 TOTAL 34837.83 MEAN 95.4 MAX 3290 MIN .08 AC-FT 69100
WTR YR 1984 TOTAL 27247.02 MEAN 74.4 MAX 2990 MIN .00 AC-FT 54040

## 06911900 DRAGOON CREEK NEAR BURLINGAME, KS

LOCATION.--Lat 38 deg 42 min 30 sec, long 95 deg 50 min 20 sec, in SE1/4 SE1/4 sec.27, T.15 S., R.14 E., Osage County, Hydrologic Unit 10290101, on left bank, 110 ft downstream from city of Burlingame pumping station and dam, 0.2 mi downstream from bridge on U.S. Highway 56, 2.0 mi downstream from Plum Creek and 3.0 mi south of Burlingame.

DRAINAGE AREA.--114 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,016.06 ft National Geodetic Vertical Datum of 1929. Prior to June 8, 1960, nonrecording gage at bridge 180 ft upstream at present datum.

REMARKS.--Records good. Diversions 110 ft above station for municipal supply of Burlingame.

AVERAGE DISCHARGE.--24 years, 68.8 cu ft per sec, 48,850 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,400 cu ft per sec May 29, 1982, gage height, 22.64 ft from rating curve extended above 11,000 cu ft per sec; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1900, 23.4 ft June 26, 1946, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Nov. 27 | 2000 | 1,720 | 9.09 | Apr. 30 | 0400 | 1,800 | 9.42 |
| Mar. 19 | 0900 | 3,590 | 15.36 | June 7 | 1200 | 3,560 | 15.27 |
| Mar. 21 | 0500 | 2,050 | 10.41 | June 10 | 0500 | *5,600 | 19.10 |
| Apr. 8 | 1700 | 2,050 | 10.41 | June 22 | 1300 | 1,650 | 8.73 |
| Apr. 21 | 1200 | 1,650 | 8.74 | | | | |

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .57 | 33 | 7.7 | 23 | 25 | 47 | 165 | 27 | 38 | .80 | .00 |
| 2 | .00 | .80 | 26 | 8.3 | 21 | 25 | 210 | 151 | 23 | 32 | .80 | .00 |
| 3 | .00 | .93 | 27 | 8.1 | 20 | 24 | 954 | 226 | 20 | 29 | .58 | .00 |
| 4 | .00 | .57 | 36 | 9.5 | 18 | 247 | 161 | 127 | 20 | 26 | .34 | .00 |
| 5 | .00 | .22 | 41 | 13 | 11 | 141 | 86 | 94 | 19 | 30 | .30 | .00 |
| 6 | .00 | .10 | 39 | 62 | 9.4 | 72 | 60 | 85 | 18 | 32 | .21 | .00 |
| 7 | .00 | .10 | 31 | 206 | 8.1 | 54 | 77 | 88 | 1790 | 30 | .03 | .00 |
| 8 | .00 | .10 | 29 | 227 | 8.1 | 42 | 1610 | 75 | 181 | 29 | .00 | .00 |
| 9 | .00 | 2.6 | 29 | 162 | 10 | 29 | 590 | 66 | 3450 | 23 | .14 | .00 |
| 10 | .00 | 53 | 26 | 68 | 15 | 28 | 150 | 60 | 3040 | 19 | .02 | .00 |
| 11 | .00 | 78 | 25 | 42 | 17 | 27 | 110 | 57 | 248 | 16 | .00 | .00 |
| 12 | .00 | 41 | 27 | 31 | 17 | 29 | 402 | 54 | 156 | 14 | .00 | .00 |
| 13 | .00 | 18 | 25 | 22 | 15 | 31 | 130 | 52 | 251 | 11 | .00 | .00 |
| 14 | .00 | 9.9 | 19 | 14 | 12 | 38 | 79 | 49 | 165 | 12 | .00 | .00 |
| 15 | .00 | 6.5 | 17 | 12 | 12 | 39 | 67 | 46 | 102 | 9.7 | .00 | .00 |
| 16 | .00 | 3.9 | 13 | 13 | 19 | 33 | 61 | 46 | 92 | 8.2 | .00 | .00 |
| 17 | .00 | 3.1 | 11 | 11 | 30 | 500 | 54 | 44 | 73 | 8.5 | .00 | .00 |
| 18 | .00 | 2.9 | 7.6 | 9.0 | 28 | 556 | 44 | 42 | 458 | 7.1 | .00 | .00 |
| 19 | .45 | 3.1 | 6.6 | 7.4 | 28 | 2320 | 40 | 41 | 87 | 5.1 | .00 | .00 |
| 20 | 2.2 | 3.2 | 6.4 | 6.4 | 28 | 466 | 39 | 196 | 63 | 5.0 | .00 | .00 |
| 21 | 3.5 | 3.8 | 6.0 | 5.4 | 22 | 1140 | 1050 | 82 | 61 | 5.0 | .00 | .00 |
| 22 | 1.8 | 3.7 | 5.6 | 6.0 | 20 | 245 | 317 | 52 | 803 | 4.4 | .00 | .00 |
| 23 | .57 | 5.8 | 5.2 | 7.8 | 19 | 103 | 174 | 43 | 197 | 2.8 | .00 | .00 |
| 24 | .43 | 13 | 5.0 | 9.3 | 18 | 366 | 112 | 38 | 108 | .71 | .00 | .00 |
| 25 | .39 | 11 | 5.0 | 11 | 17 | 203 | 89 | 32 | 67 | 1.6 | .00 | .00 |
| 26 | .29 | 15 | 5.0 | 20 | 18 | 576 | 76 | 29 | 52 | 2.0 | .00 | .00 |
| 27 | .20 | 1020 | 5.0 | 39 | 32 | 517 | 70 | 45 | 325 | 1.8 | .00 | .00 |
| 28 | .20 | 629 | 5.0 | 37 | 48 | 150 | 61 | 90 | 101 | 1.2 | .00 | .00 |
| 29 | .10 | 98 | 5.1 | 41 | 30 | 172 | 227 | 54 | 112 | .82 | .00 | .00 |
| 30 | .37 | 50 | 5.4 | 44 | --- | 81 | 874 | 36 | 62 | .80 | .00 | .00 |
| 31 | .40 | --- | 6.1 | 30 | --- | 56 | --- | 30 | --- | .80 | .00 | --- |
| TOTAL | 10.90 | 2077.89 | 533.0 | 1189.9 | 573.6 | 8335 | 8021 | 2295 | 12171 | 406.53 | 3.22 | .00 |
| MEAN | .35 | 69.3 | 17.2 | 38.4 | 19.8 | 269 | 267 | 74.0 | 406 | 13.1 | .10 | .000 |
| MAX | 3.5 | 1020 | 41 | 227 | 48 | 2320 | 1610 | 226 | 3450 | 38 | .80 | .00 |
| MIN | .00 | .10 | 5.0 | 5.4 | 8.1 | 24 | 39 | 29 | 18 | .71 | .00 | .00 |
| AC-FT | 22 | 4120 | 1060 | 2360 | 1140 | 16530 | 15910 | 4550 | 24140 | 806 | 6.4 | .00 |

CAL YR 1983 TOTAL 38736.20 MEAN 106 MAX 4550 MIN .00 AC-FT 76830
WTR YR 1984 TOTAL 35617.04 MEAN 97.3 MAX 3450 MIN .00 AC-FT 70650

## 06911900 DRAGOON CREEK NEAR BURLINGAME, KS--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV | | | | | |
| 10... | 11:50 | 11 | 495 | 7.9 | 10.0 |
| DEC | | | | | |
| 20... | 13:45 | 7.1 | 682 | 7.9 | 0.5 |
| JAN | | | | | |
| 28... | 12:30 | 39 | 730 | 8.2 | 0.5 |
| MAR | | | | | |
| 12... | 12:25 | 29 | 590 | 8.1 | 4.0 |
| APR | | | | | |
| 24... | 09:35 | 117 | 651 | 8.8 | 11.0 |
| JUN | | | | | |
| 07... | 10:20 | 3670 | 174 | 8.3 | 21.0 |
| JUL | | | | | |
| 27... | 15:55 | 1.2 | 520 | 6.7 | 29.0 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| JAN | | | | |
| 28... | 12:30 | 39 | 32 | 3.4 |
| MAR | | | | |
| 12... | 12:25 | 29 | 38 | 3.0 |
| APR | | | | |
| 24... | 09:35 | 117 | 56 | 21 |
| JUN | | | | |
| 07... | 10:20 | 3670 | 2000 | 19800 |
| JUL | | | | |
| 27... | 15:55 | 1.2 | 55 | 0.18 |

### PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|
| JUN | | | | |
| 07... | 53 | 76 | 92 | 99 |

BEST COPY AVAILABLE

## 06912490 POMONA LAKE NEAR QUENEMO, KS

LOCATION.--Lat 38 deg 38 min 51 sec, long 95 deg 33 min 50 sec, in NE1/4 SE1/4 NE1/4 sec.19, T.16 S., R.17 E., Osage County, Hydrologic Unit 10290101, in control tower at dam on Hundred and Ten Mile Creek, 5.0 mi northwest of Quenemo, and 7.9 mi above mouth.

DRAINAGE AREA.--322 sq mi.

PERIOD OF RECORD.--April 1964 to current year. Prior to October 1971, published as "Pomona Reservoir."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Oct. 15, 1963. Total capacity, 498,500 acre-ft, consisting of the following: Sedimentation, 25,610 acre-ft below elevation 960.5 ft; conservation pool, 41,030 acre-ft between elevations 960.5 ft and 974.0 ft; flood control pool, 176,500 acre-ft between elevations 974.0 ft and 1,003.0 ft; and surcharge pool, 255,400 acre-ft between elevations 1,003.0 ft and 1,025.4 ft. Reservoir is used for flood control, conservation, and recreation. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 990.24 ft June 2, 1982, contents, 149,500 acre-ft; minimum since conservation pool was first filled, 969.60 ft Mar. 29, 30, 1967, contents, 54,260 acre-ft, from capacity table then in use.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 982.22 ft June 13, contents, 103,900 acre-ft; minimum, 969.74 ft Oct. 18, 19, contents, 51,250 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers in 1975)

| | | | |
|---|---|---|---|
| 965 | 36,630 | 980 | 92,870 |
| 970 | 52,130 | 985 | 115,600 |
| 975 | 70,630 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 970.06 | 969.90 | 970.95 | 969.84 | 970.20 | 970.81 | 979.28 | 975.12 | 974.19 | 975.43 | 973.58 | 972.66 |
| 2 | 969.97 | 969.90 | 970.65 | 969.83 | 970.10 | 970.84 | 979.02 | 974.95 | 974.19 | 974.73 | 973.56 | 972.70 |
| 3 | 969.95 | 969.90 | 970.58 | 969.82 | 970.03 | 970.87 | 979.68 | 974.68 | 974.17 | 974.46 | 973.53 | 972.67 |
| 4 | 969.95 | 969.88 | 970.42 | 969.80 | 969.98 | 971.36 | 979.75 | 974.40 | 974.16 | 974.40 | 973.50 | 972.65 |
| 5 | 969.95 | 969.85 | 970.33 | 969.82 | 969.92 | 971.56 | 979.69 | 974.28 | 974.15 | 974.35 | 973.47 | 972.60 |
| 6 | 969.93 | 969.85 | 970.17 | 969.83 | 969.89 | 971.65 | 979.31 | 974.17 | 974.14 | 974.34 | 973.44 | 972.53 |
| 7 | 969.90 | 969.84 | 970.06 | 969.90 | 969.90 | 971.80 | 979.02 | 974.02 | 974.97 | 974.30 | 973.43 | 972.46 |
| 8 | 969.90 | 969.82 | 970.08 | 970.19 | 969.91 | 971.76 | 980.55 | 973.97 | 975.05 | 974.26 | 973.40 | 972.49 |
| 9 | 969.88 | 969.95 | 970.08 | 970.57 | 969.96 | 971.80 | 981.05 | 973.96 | 978.97 | 974.21 | 973.38 | 972.47 |
| 10 | 969.85 | 969.92 | 970.18 | 970.72 | 969.97 | 971.84 | 981.10 | 973.96 | 981.76 | 974.18 | 973.35 | 972.45 |
| 11 | 969.95 | 969.96 | 970.36 | 970.69 | 970.02 | 971.85 | 981.40 | 973.96 | 982.00 | 974.15 | 973.32 | 972.45 |
| 12 | 969.90 | 969.98 | 970.43 | 970.16 | 970.04 | 971.93 | 981.90 | 973.95 | 982.13 | 974.08 | 973.28 | 972.41 |
| 13 | 969.87 | 970.00 | 970.49 | 970.02 | 970.06 | 971.96 | 981.90 | 973.94 | 982.03 | 974.06 | 973.25 | 972.40 |
| 14 | 969.82 | 970.00 | 970.50 | 970.03 | 970.07 | 972.02 | 981.53 | 973.90 | 981.29 | 974.05 | 973.22 | 972.45 |
| 15 | 969.80 | 969.98 | 970.43 | 970.07 | 970.11 | 972.10 | 981.15 | 973.90 | 980.55 | 974.03 | 973.19 | 972.41 |
| 16 | 969.78 | 969.97 | 970.37 | 970.08 | 970.18 | 972.39 | 980.03 | 973.90 | 980.20 | 974.00 | 973.16 | 972.37 |
| 17 | 969.75 | 969.97 | 970.35 | 970.10 | 970.21 | 972.90 | 978.88 | 973.92 | 979.84 | 974.01 | 973.14 | 972.35 |
| 18 | 969.74 | 969.95 | 970.30 | 971.10 | 970.35 | 974.65 | 977.66 | 973.93 | 979.47 | 973.97 | 973.11 | 972.33 |
| 19 | 969.87 | 970.00 | 970.25 | 970.11 | 970.35 | 977.05 | 976.42 | 973.97 | 978.88 | 973.94 | 973.07 | 972.30 |
| 20 | 969.92 | 969.96 | 970.22 | 970.11 | 970.38 | 978.68 | 975.70 | 974.04 | 978.25 | 973.90 | 973.03 | 972.28 |
| 21 | 969.95 | 969.94 | 970.20 | 970.11 | 970.40 | 979.28 | 976.53 | 974.08 | 978.11 | 973.87 | 973.05 | 972.24 |
| 22 | 969.95 | 970.01 | 970.15 | 970.11 | 970.42 | 979.50 | 976.86 | 974.12 | 978.90 | 973.85 | 973.03 | 972.22 |
| 23 | 969.93 | 970.03 | 970.13 | 970.11 | 970.45 | 979.67 | 976.74 | 974.09 | 979.06 | 973.83 | 972.98 | 972.20 |
| 24 | 969.92 | 970.01 | 970.13 | 970.11 | 970.46 | 980.20 | 976.41 | 974.02 | 979.11 | 973.80 | 972.94 | 972.19 |
| 25 | 969.90 | 970.00 | 970.13 | 970.13 | 970.46 | 980.50 | 976.06 | 974.02 | 978.78 | 973.78 | 972.90 | 972.14 |
| 26 | 969.83 | 970.06 | 970.13 | 970.14 | 970.56 | 981.06 | 975.70 | 974.00 | 978.15 | 973.75 | 972.86 | 972.10 |
| 27 | 969.87 | 971.27 | 970.13 | 970.15 | 970.65 | 981.27 | 975.36 | 974.15 | 977.66 | 973.75 | 972.84 | 972.10 |
| 28 | 969.85 | 971.94 | 970.10 | 970.30 | 970.73 | 981.10 | 974.90 | 974.17 | 977.20 | 973.71 | 972.81 | 972.08 |
| 29 | 969.84 | 971.68 | 969.98 | 970.40 | 970.76 | 980.78 | 974.87 | 974.20 | 976.75 | 973.67 | 972.78 | 972.05 |
| 30 | 969.90 | 971.33 | 969.89 | 970.39 | --- | 980.30 | 975.22 | 974.20 | 976.11 | 973.64 | 972.75 | 972.02 |
| 31 | 969.88 | --- | 969.86 | 970.30 | --- | 979.91 | --- | 974.19 | --- | 973.62 | 972.71 | --- |
| MEAN | 969.89 | 970.16 | 970.26 | 970.16 | 970.22 | 975.27 | 978.47 | 974.13 | 978.01 | 974.07 | 973.16 | 972.36 |
| MAX | 970.06 | 971.94 | 970.95 | 971.10 | 970.76 | 981.27 | 981.90 | 975.12 | 982.13 | 975.43 | 973.58 | 972.70 |
| MIN | 969.74 | 969.82 | 969.86 | 969.80 | 969.89 | 970.81 | 974.87 | 973.90 | 974.14 | 973.62 | 972.71 | 972.02 |
| (+) | 51,720 | 56,740 | 51,660 | 53,150 | 54,740 | 91,960 | 71,530 | 67,390 | 75,250 | 65,170 | 61,730 | 59,210 |
| (#) | -990 | +5,020 | -5,080 | +1,490 | +1,590 | +37,220 | -20,430 | -4,140 | +7,860 | -10,080 | -3,440 | -2,520 |

CAL YR 1983 ........................ (#) -880
WTR YR 1984 ........................ (#) +6,500

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

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## 06912500 HUNDRED AND TEN MILE CREEK NEAR QUENEMO, KS

LOCATION.--Lat 38 deg 38 min 41 sec, long 95 deg 33 min 34 sec, in NE1/4 NW1/4 SW1/4 sec.20, T.16 S., R.17 E., Osage County, Hydrologic Unit 10290101, on left bank 800 ft downstream from outlet works of Pomona Dam, 4.5 mi northeast of Quenemo, and 7.7 mi upstream from mouth.

DRAINAGE AREA.--322 sq mi.

PERIOD OF RECORD.--September 1939 to current year. Prior to October 1941, published as "Dragoon Creek."

REVISED RECORDS.--WSP 1116: 1942.

GAGE.--Water-stage recorder. Datum of gage is 919.05 ft National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). See WSP 1919 for history of changes prior to Apr. 11, 1963.

REMARKS.--Records good. Flow completely regulated since 1964 by Pomona Lake (see sta 06912490).

AVERAGE DISCHARGE.--45 years, 177 cu ft per sec, 128,200 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,600 cu ft per sec July 11, 1951, gage height, 28.47 ft, site and datum then in use, from rating curve extended above 20,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1919, that of July 11, 1951, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,130 cu ft per sec Apr. 16, gage height, 14.72 ft; minimum, 0.45 cu ft per sec July 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 135 | 16 | 687 | 35 | 259 | 19 | 1610 | 446 | 23 | 1510 | 16 | 17 |
| 2 | 101 | 17 | 558 | 34 | 257 | 19 | 1610 | 822 | 23 | 1490 | 18 | 17 |
| 3 | 16 | 17 | 330 | 31 | 194 | 19 | 907 | 1070 | 24 | 645 | 18 | 17 |
| 4 | 16 | 17 | 329 | 28 | 150 | 24 | 422 | 823 | 24 | 102 | 19 | 18 |
| 5 | 16 | 17 | 327 | 28 | 148 | 20 | 417 | 387 | 23 | 101 | 19 | 18 |
| 6 | 16 | 17 | 327 | 30 | 64 | 20 | 1090 | 385 | 21 | 101 | 19 | 17 |
| 7 | 16 | 17 | 268 | 31 | 19 | 20 | 1540 | 385 | 21 | 101 | 19 | 18 |
| 8 | 3.2 | 17 | 61 | 31 | 14 | 20 | 525 | 191 | 539 | 101 | 19 | 18 |
| 9 | 5.8 | 17 | 26 | 30 | 17 | 20 | 449 | 101 | 154 | 104 | 19 | 18 |
| 10 | 16 | 20 | 26 | 280 | 18 | 20 | 417 | 101 | 22 | 86 | 20 | 18 |
| 11 | 17 | 17 | 39 | 519 | 18 | 20 | 429 | 101 | 15 | 58 | 20 | 18 |
| 12 | 30 | 17 | 29 | 655 | 18 | 20 | 436 | 101 | 5.6 | 6.7 | 20 | 18 |
| 13 | 31 | 17 | 27 | 253 | 18 | 21 | 422 | 102 | 845 | 17 | 20 | 18 |
| 14 | 31 | 17 | 74 | 25 | 18 | 23 | 415 | 102 | 2250 | 17 | 20 | 17 |
| 15 | 31 | 17 | 112 | 25 | 18 | 22 | 1650 | 51 | 2210 | 17 | 20 | 17 |
| 16 | 32 | 17 | 112 | 25 | 18 | 70 | 3100 | 21 | 1030 | 14 | 20 | 17 |
| 17 | 23 | 17 | 112 | 25 | 20 | 108 | 3110 | 20 | 1020 | 20 | 20 | 17 |
| 18 | 16 | 17 | 110 | 25 | 23 | 108 | 3060 | 20 | 1330 | 20 | 20 | 17 |
| 19 | 16 | 17 | 110 | 25 | 22 | 25 | 3000 | 20 | 1630 | 20 | 19 | 17 |
| 20 | 16 | 18 | 110 | 25 | 22 | 25 | 2330 | 20 | 1620 | 20 | 20 | 17 |
| 21 | 16 | 18 | 110 | 25 | 21 | 26 | 400 | 20 | 710 | 20 | 20 | 17 |
| 22 | 16 | 24 | 110 | 25 | 17 | 25 | 395 | 20 | 26 | 20 | 20 | 17 |
| 23 | 16 | 19 | 110 | 25 | 18 | 26 | 623 | 70 | 22 | 20 | 20 | 17 |
| 24 | 16 | 18 | 110 | 25 | 19 | 33 | 1030 | 103 | 22 | 20 | 19 | 17 |
| 25 | 16 | 18 | 110 | 25 | 19 | 28 | 1020 | 56 | 805 | 20 | 18 | 17 |
| 26 | 16 | 18 | 110 | 25 | 19 | 346 | 1010 | 27 | 1550 | 20 | 18 | 17 |
| 27 | 16 | 44 | 110 | 21 | 20 | 1130 | 1020 | 27 | 1540 | 20 | 18 | 17 |
| 28 | 16 | 331 | 110 | 21 | 19 | 1120 | 997 | 25 | 1530 | 20 | 18 | 17 |
| 29 | 16 | 703 | 84 | 21 | 19 | 1390 | 1020 | 23 | 1540 | 20 | 18 | 17 |
| 30 | 16 | 688 | 35 | 145 | --- | 1640 | 639 | 23 | 1520 | 18 | 18 | 17 |
| 31 | 15 | --- | 35 | 257 | --- | 1620 | --- | 23 | --- | 18 | 17 | --- |
| TOTAL | 759.0 | 2224 | 4608 | 2775 | 1506 | 8027 | 35098 | 5686 | 22094.6 | 4766.7 | 589 | 519 |
| MEAN | 24.5 | 74.1 | 155 | 89.5 | 51.9 | 259 | 1170 | 183 | 736 | 154 | 19.0 | 17.3 |
| MAX | 135 | 703 | 687 | 655 | 259 | 1640 | 3110 | 1070 | 2250 | 1510 | 20 | 18 |
| MIN | 3.2 | 16 | 26 | 21 | 14 | 19 | 395 | 20 | 5.6 | 6.7 | 16 | 17 |
| AC-FT | 1510 | 4410 | 9540 | 5500 | 2990 | 15920 | 69620 | 11280 | 43820 | 9450 | 1170 | 1030 |

CAL YR 1983 TOTAL 90050.0 MEAN 247 MAX 2970 MIN 3.2 AC-FT 178600
WTR YR 1984 TOTAL 88852.3 MEAN 243 MAX 3110 MIN 3.2 AC-FT 176200

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## 06913000 MARAIS DES CYGNES RIVER NEAR POMONA, KS

LOCATION.--Lat 38 deg 35 min 03 sec, long 95 deg 27 min 12 sec, in SE1/4 NE1/4 SE1/4 sec.7, T.17 S., R.18 E., Franklin County, Hydrologic Unit 10290101, on right bank at downstream side of county highway bridge, 1.5 mi south of Pomona, 4.7 mi upstream from Miller Dam, 5.7 mi downstream from Hundred and Ten Mile Creek, and at mile 418.1.

DRAINAGE AREA.--1,040 sq mi.

PERIOD OF RECORD.--July 1922 to February 1938, October 1968 to current year. Prior to October 1968, published as "near Quenemo."

REVISED RECORDS.--WSP 1310: 1924(M), 1929, 1931(M), 1934, 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 893.74 ft National Geodetic Vertical Datum of 1929. July 1922 to February 1938, nonrecording gage 1.7 mi upstream at datum 891.36 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good. Flow regulated since 1973 by Melvern Lake (see sta 06910997) and since 1964 by Pomona Lake (see sta 06912490). Diversions above station for irrigation.

AVERAGE DISCHARGE.--31 years (water years 1923-37, 1969-84) 528 cu ft per sec, 382,500 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,400 cu ft per sec Nov. 17, 1928, gage height, 38.38 ft, from floodmark, site and datum then in use, from rating curve extended above 20,000 cu ft per sec by logarithmic plotting and unit-runoff study at gage height, 40.35 ft for flood of July 11, 1951; no flow at times in 1926, 1931, 1933, 1934, 1936-38.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,500 cu ft per sec June 10, gage height, 27.47 ft; minimum discharge, 2.0 cu ft per sec Sept. 26, 29, 30.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 154 | 61 | 986 | 97 | 390 | 193 | 3660 | 2020 | 182 | 2890 | 48 | 40 |
| 2 | 238 | 78 | 935 | 87 | 376 | 162 | 3680 | 1750 | 168 | 2820 | 44 | 40 |
| 3 | 31 | 80 | 599 | 83 | 344 | 142 | 4760 | 3740 | 162 | 1700 | 48 | 41 |
| 4 | 21 | 74 | 864 | 76 | 221 | 445 | 3150 | 3180 | 158 | 303 | 49 | 40 |
| 5 | 22 | 71 | 757 | 88 | 203 | 907 | 1740 | 2110 | 154 | 256 | 46 | 42 |
| 6 | 21 | 68 | 654 | 187 | 167 | 416 | 1810 | 1920 | 146 | 204 | 46 | 42 |
| 7 | 22 | 65 | 599 | 467 | 73 | 274 | 3430 | 1900 | 139 | 156 | 47 | 39 |
| 8 | 23 | 63 | 305 | 712 | 64 | 218 | 5380 | 1730 | 534 | 152 | 49 | 40 |
| 9 | 12 | 66 | 131 | 759 | 58 | 450 | 5890 | 1750 | 7850 | 145 | 49 | 19 |
| 10 | 14 | 104 | 113 | 603 | 82 | 686 | 2660 | 1910 | 11400 | 137 | 52 | 18 |
| 11 | 34 | 172 | 1150 | 967 | 100 | 680 | 1810 | 1880 | 6160 | 126 | 49 | 18 |
| 12 | 40 | 142 | 626 | 1070 | 97 | 682 | 4710 | 1780 | 884 | 59 | 49 | 20 |
| 13 | 46 | 98 | 270 | 792 | 89 | 687 | 3540 | 595 | 1660 | 46 | 45 | 21 |
| 14 | 45 | 76 | 189 | 111 | 82 | 408 | 1760 | 338 | 4850 | 50 | 45 | 24 |
| 15 | 46 | 63 | 218 | 89 | 75 | 311 | 1970 | 306 | 5500 | 48 | 47 | 24 |
| 16 | 48 | 56 | 190 | 81 | 71 | 301 | 5580 | 168 | 4060 | 48 | 45 | 23 |
| 17 | 50 | 53 | 190 | 78 | 104 | 1450 | 6520 | 122 | 3610 | 48 | 44 | 22 |
| 18 | 39 | 54 | 146 | 71 | 120 | 2200 | 6550 | 113 | 3670 | 52 | 46 | 24 |
| 19 | 57 | 54 | 165 | 74 | 141 | 7900 | 6470 | 108 | 4180 | 52 | 46 | 24 |
| 20 | 63 | 56 | 192 | 80 | 136 | 7830 | 6350 | 111 | 4130 | 50 | 45 | 25 |
| 21 | 68 | 60 | 192 | 81 | 108 | 3570 | 5200 | 119 | 3970 | 50 | 47 | 29 |
| 22 | 67 | 65 | 194 | 76 | 95 | 1380 | 3490 | 119 | 1010 | 48 | 48 | 22 |
| 23 | 51 | 163 | 192 | 70 | 83 | 717 | 2170 | 116 | 353 | 48 | 45 | 16 |
| 24 | 49 | 173 | 173 | 70 | 77 | 1070 | 2520 | 295 | 415 | 48 | 43 | 11 |
| 25 | 45 | 142 | 167 | 75 | 71 | 1390 | 2580 | 347 | 468 | 48 | 42 | 6.5 |
| 26 | 41 | 115 | 173 | 93 | 76 | 1020 | 2500 | 199 | 2560 | 50 | 42 | 6.5 |
| 27 | 42 | 636 | 184 | 122 | 161 | 3690 | 2600 | 221 | 2910 | 50 | 41 | 4.2 |
| 28 | 44 | 2090 | 186 | 139 | 340 | 3730 | 2510 | 519 | 2890 | 51 | 37 | 4.2 |
| 29 | 45 | 1360 | 181 | 156 | 268 | 3480 | 2670 | 332 | 3130 | 50 | 38 | 6.5 |
| 30 | 50 | 1080 | 117 | 196 | --- | 3770 | 4010 | 242 | 2990 | 48 | 39 | 11 |
| 31 | 51 | --- | 108 | 432 | --- | 3710 | --- | 203 | --- | 44 | 39 | --- |
| TOTAL | 1579 | 7438 | 11146 | 8082 | 4272 | 53869 | 111670 | 30243 | 80443 | 9877 | 1400 | 702.9 |
| MEAN | 50.9 | 248 | 360 | 261 | 147 | 1738 | 3722 | 976 | 2681 | 319 | 45.2 | 23.4 |
| MAX | 238 | 2090 | 1150 | 1070 | 390 | 7900 | 6550 | 3740 | 11400 | 2890 | 52 | 42 |
| MIN | 12 | 53 | 108 | 70 | 58 | 142 | 1740 | 108 | 139 | 44 | 37 | 4.2 |
| AC-FT | 3130 | 14750 | 22110 | 16030 | 8470 | 106800 | 221500 | 59990 | 159600 | 19590 | 2780 | 1390 |

CAL YR 1983 TOTAL 374759.0 MEAN 1027 MAX 9340 MIN 12 AC-FT 743300
WTR YR 1984 TOTAL 320721.9 MEAN 876 MAX 11400 MIN 4.2 AC-FT 636200

## 06913500 MARAIS DES CYGNES RIVER NEAR OTTAWA, KS

LOCATION.--Lat 38 deg 37 min 00 sec, long 95 deg 15 min 25 sec, in SW1/4 SW1/4 NE1/4 sec.36, T.16 S., R.19 E., Franklin County, Hydrologic Unit 10290101, on right bank at sewage disposal plant in Ottawa, 0.9 mi downstream from Main Street Bridge, 1.9 mi downstream from Eightmile Creek, and at mile 398.9.

DRAINAGE AREA.--1,250 sq mi, approximately.

PERIOD OF RECORD.--August 1902 to October 1905, October 1918 to current year. Published as Osage River at Ottawa 1902-05, and as Osage River near Ottawa 1918-47.

REVISED RECORDS.--WSP 1006: 1923, 1927, 1929. WSP 1440: 1904-05, 1922, 1929(M), 1935, 1941-43, 1944-45(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 857.68 ft National Geodetic Vertical Datum of 1929. Aug. 26, 1902, to Oct. 31, 1905, nonrecording gages at Main Street Bridge in Ottawa at different datums. Oct. 27, 1918, to Sept. 4, 1962, water-stage recorder at Seventh Street Bridge, 0.9 mi downstream at datum 0.47 ft higher.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated since 1973 by Melvern Lake (see sta 06910997) and since 1964 by Pomona Lake (see sta 06912490). Diversions above station for irrigation.

AVERAGE DISCHARGE.--68 years (water years 1903-05, 1920-84), 659 cu ft per sec, 477,400 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 142,000 cu ft per sec July 11, 1951, gage height, 42.50 ft, site and datum then in use, from rating curve extended above 44,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times in 1920, 1930-34, 1936, 1937, 1939-41.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of 1951 is the highest known since Ottawa was settled (about 1864) according to information reported in "Climate of Kansas - 1948." Flood of June 13 or 14, 1844, reached a stage of about 1.5 ft lower than that in 1951 according to same information.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 19 | 2300 | 10,900 | 26.61 | Apr. 21 | 1100 | 7,750 | 21.99 |
| Apr. 9 | 0500 | 8,440 | 23.49 | June 10 | 1200 | *18,400 | 33.53 |
| Apr. 12 | 2000 | 7,200 | 20.91 | June 22 | 0300 | 7,620 | 21.75 |

Minimum discharge, 16 cu ft per sec Sept. 26, 27, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 393 | 233 | 956 | 163 | 449 | 284 | 3670 | 2920 | 210 | 2870 | 37 | 31 |
| 2 | 203 | 277 | 886 | 164 | 417 | 244 | 3760 | 1840 | 187 | 2810 | 41 | 34 |
| 3 | 122 | 128 | 757 | 161 | 397 | 219 | 4830 | 3620 | 177 | 2190 | 37 | 36 |
| 4 | 47 | 99 | 1030 | 157 | 301 | 624 | 4290 | 3600 | 173 | 511 | 39 | 35 |
| 5 | 38 | 67 | 860 | 164 | 256 | 1150 | 2070 | 2440 | 164 | 275 | 42 | 30 |
| 6 | 35 | 61 | 689 | 250 | 231 | 603 | 1680 | 1990 | 159 | 354 | 40 | 36 |
| 7 | 35 | 54 | 607 | 597 | 161 | 386 | 3130 | 1960 | 151 | 358 | 38 | 38 |
| 8 | 35 | 50 | 424 | 986 | 123 | 310 | 6360 | 1850 | 257 | 326 | 37 | 41 |
| 9 | 32 | 62 | 222 | 1130 | 121 | 359 | 7900 | 1640 | 12900 | 210 | 40 | 46 |
| 10 | 23 | 293 | 177 | 805 | 139 | 676 | 4140 | 1890 | 17800 | 184 | 37 | 41 |
| 11 | 55 | 275 | 2520 | 942 | 175 | 679 | 2180 | 1860 | 13500 | 218 | 35 | 38 |
| 12 | 56 | 204 | 1390 | 1050 | 197 | 683 | 6020 | 1820 | 4640 | 130 | 36 | 42 |
| 13 | 57 | 143 | 460 | 900 | 171 | 694 | 5250 | 941 | 1340 | 69 | 37 | 35 |
| 14 | 54 | 105 | 317 | 361 | 153 | 565 | 2190 | 369 | 4330 | 70 | 40 | 46 |
| 15 | 52 | 86 | 250 | 171 | 140 | 385 | 1730 | 338 | 5300 | 64 | 32 | 42 |
| 16 | 51 | 74 | 230 | 163 | 134 | 365 | 4380 | 248 | 4510 | 65 | 32 | 41 |
| 17 | 50 | 64 | 220 | 161 | 143 | 1490 | 6010 | 167 | 3680 | 62 | 34 | 40 |
| 18 | 47 | 59 | 210 | 148 | 202 | 3280 | 6180 | 152 | 3570 | 54 | 36 | 40 |
| 19 | 109 | 58 | 220 | 133 | 218 | 10100 | 6110 | 146 | 4000 | 60 | 39 | 40 |
| 20 | 120 | 54 | 230 | 123 | 215 | 10400 | 6090 | 148 | 4110 | 58 | 39 | 40 |
| 21 | 185 | 57 | 225 | 118 | 180 | 7140 | 7370 | 155 | 5690 | 53 | 41 | 40 |
| 22 | 115 | 81 | 220 | 121 | 161 | 2560 | 5290 | 147 | 6050 | 49 | 45 | 40 |
| 23 | 75 | 225 | 215 | 127 | 148 | 1000 | 2940 | 139 | 989 | 50 | 41 | 31 |
| 24 | 57 | 266 | 210 | 137 | 137 | 1630 | 2530 | 229 | 531 | 47 | 40 | 25 |
| 25 | 51 | 204 | 205 | 138 | 129 | 2140 | 2690 | 346 | 355 | 48 | 40 | 20 |
| 26 | 47 | 157 | 210 | 158 | 143 | 1490 | 2530 | 254 | 2000 | 55 | 40 | 18 |
| 27 | 45 | 1310 | 210 | 201 | 249 | 3540 | 2730 | 360 | 2930 | 51 | 41 | 19 |
| 28 | 42 | 3180 | 210 | 228 | 403 | 4100 | 2670 | 651 | 2920 | 48 | 37 | 20 |
| 29 | 41 | 1680 | 210 | 245 | 377 | 3630 | 3510 | 434 | 3340 | 45 | 29 | 17 |
| 30 | 66 | 1120 | 180 | 265 | --- | 3760 | 5610 | 294 | 3070 | 42 | 26 | 19 |
| 31 | 65 | --- | 160 | 420 | --- | 3750 | --- | 243 | --- | 43 | 28 | --- |
| TOTAL | 2403 | 10726 | 14910 | 10890 | 6270 | 68236 | 125840 | 33191 | 109033 | 11469 | 1156 | 1021 |
| MEAN | 77.5 | 358 | 481 | 351 | 216 | 2201 | 4195 | 1071 | 3634 | 370 | 37.3 | 34.0 |
| MAX | 393 | 3180 | 2520 | 1130 | 449 | 10400 | 7900 | 3620 | 17800 | 2870 | 45 | 46 |
| MIN | 23 | 50 | 160 | 118 | 121 | 219 | 1680 | 139 | 151 | 42 | 26 | 17 |
| AC-FT | 4770 | 21280 | 29570 | 21600 | 12440 | 135300 | 249600 | 65830 | 216300 | 22750 | 2290 | 2030 |

CAL YR 1983 TOTAL 442277 MEAN 1212 MAX 12900 MIN 23 AC-FT 877300
WTR YR 1984 TOTAL 395145 MEAN 1080 MAX 17800 MIN 17 AC-FT 783800

## 06914000 POTTAWATOMIE CREEK NEAR GARNETT, KS

LOCATION.--Lat 38 deg 20 min 01 sec, long 95 deg 14 min 55 sec, in SW1/4 SW1/4 SW1/4 sec.6, T.20 S., R.20 E., Anderson County, Hydrologic Unit 10290101, at upstream side of bridge on U.S. Highway 59, 0.6 mi downstream from confluence of North Pottawatomie and Cedar Creeks, 0.2 mi upstream from Atchison, Topeka and Santa Fe Railway Co. bridge, 4.0 mi north of Garnett, and at mile 40.7.

DRAINAGE AREA.--334 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1390: 1940, 1941(M), 1945, 1947(M), 1949-50.

GAGE.--Water-stage recorder. Datum of gage is 873.23 ft National Geodetic Vertical Datum of 1929. See WSP 1919 for history of changes prior to May 16, 1958.

REMARKS.--Records good.

AVERAGE DISCHARGE.--45 years, 223 cu ft per sec, 161,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,000 cu ft per sec Sept. 13, 1961, gage height, 35.38 ft; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1858, that of Sept. 13, 1961, from information by local newspaper.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,800 cu ft per sec Mar. 19, gage height, 28.49 ft; no other peak above base of 6,000 cu ft per sec; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | 30 | 79 | 22 | 59 | 194 | 147 | 373 | 38 | 113 | .33 | .00 |
| 2 | .00 | 316 | 62 | 21 | 51 | 156 | 310 | 211 | 30 | 71 | .11 | .00 |
| 3 | .00 | 267 | 71 | 21 | 46 | 126 | 1710 | 467 | 26 | 51 | .29 | .00 |
| 4 | .00 | 102 | 259 | 21 | 44 | 580 | 762 | 381 | 21 | 54 | .48 | .00 |
| 5 | .00 | 62 | 224 | 29 | 41 | 695 | 383 | 212 | 17 | 55 | .48 | .00 |
| 6 | .00 | 47 | 111 | 105 | 29 | 220 | 230 | 153 | 14 | 39 | .15 | .00 |
| 7 | .01 | 33 | 76 | 252 | 26 | 160 | 213 | 132 | 12 | 31 | .01 | .00 |
| 8 | .03 | 25 | 59 | 312 | 25 | 120 | 3690 | 120 | 442 | 24 | .00 | .00 |
| 9 | .10 | 20 | 49 | 232 | 24 | 93 | 4000 | 99 | 4600 | 19 | .00 | .00 |
| 10 | .10 | 19 | 42 | 159 | 26 | 80 | 985 | 81 | 2870 | 14 | .01 | .00 |
| 11 | .30 | 31 | 637 | 120 | 34 | 74 | 437 | 72 | 1280 | 11 | .02 | .00 |
| 12 | 1.3 | 38 | 674 | 84 | 172 | 73 | 3440 | 62 | 618 | 9.1 | .00 | .00 |
| 13 | .92 | 47 | 223 | 62 | 140 | 78 | 1100 | 56 | 322 | 7.5 | .00 | .00 |
| 14 | .82 | 43 | 130 | 47 | 79 | 112 | 352 | 50 | 217 | 5.9 | .00 | .00 |
| 15 | .73 | 33 | 90 | 38 | 61 | 132 | 238 | 46 | 138 | 4.8 | .00 | .00 |
| 16 | .64 | 25 | 74 | 31 | 52 | 125 | 193 | 43 | 95 | 4.4 | .00 | .00 |
| 17 | .56 | 22 | 55 | 28 | 46 | 2000 | 157 | 35 | 72 | 4.6 | .00 | .00 |
| 18 | .56 | 21 | 45 | 27 | 44 | 2120 | 132 | 30 | 62 | 3.4 | .00 | .00 |
| 19 | 4.1 | 20 | 39 | 26 | 44 | 9830 | 115 | 27 | 68 | 3.3 | .00 | .00 |
| 20 | 7.9 | 18 | 36 | 23 | 44 | 3800 | 105 | 102 | 812 | 2.8 | .00 | .00 |
| 21 | 64 | 17 | 35 | 21 | 44 | 1400 | 2630 | 124 | 633 | 2.0 | .00 | .00 |
| 22 | 53 | 16 | 33 | 21 | 42 | 500 | 1820 | 73 | 207 | 1.8 | 3.0 | .00 |
| 23 | 34 | 138 | 32 | 21 | 37 | 305 | 629 | 52 | 2300 | 1.5 | 2.1 | .00 |
| 24 | 16 | 114 | 30 | 19 | 34 | 1260 | 321 | 38 | 563 | .98 | .70 | .00 |
| 25 | 8.3 | 74 | 30 | 19 | 31 | 819 | 212 | 30 | 182 | .74 | .41 | .00 |
| 26 | 4.7 | 58 | 28 | 27 | 87 | 959 | 162 | 24 | 98 | .76 | .22 | .00 |
| 27 | 2.0 | 270 | 27 | 46 | 628 | 1330 | 141 | 31 | 142 | .51 | .17 | .00 |
| 28 | 1.2 | 1080 | 27 | 70 | 859 | 521 | 178 | 315 | 145 | .30 | .13 | .00 |
| 29 | 1.0 | 334 | 26 | 82 | 330 | 290 | 166 | 150 | 989 | .20 | .08 | .00 |
| 30 | 1.8 | 126 | 25 | 79 | --- | 204 | 1360 | 93 | 211 | .12 | .03 | .00 |
| 31 | 2.0 | --- | 24 | 70 | --- | 165 | --- | 56 | --- | .38 | .01 | --- |
| TOTAL | 206.07 | 3446 | 3352 | 2135 | 3179 | 28521 | 26318 | 3738 | 17222 | 537.09 | 8.73 | .00 |
| MEAN | 6.65 | 115 | 108 | 68.9 | 110 | 920 | 877 | 121 | 574 | 17.3 | .28 | .000 |
| MAX | 64 | 1080 | 674 | 312 | 859 | 9830 | 4000 | 467 | 4600 | 113 | 3.0 | .00 |
| MIN | .00 | 16 | 24 | 19 | 24 | 73 | 105 | 24 | 12 | .12 | .00 | .00 |
| AC-FT | 409 | 6840 | 6650 | 4230 | 6310 | 56570 | 52200 | 7410 | 34160 | 1070 | 17 | .00 |

CAL YR 1983 TOTAL 111355.48 MEAN 305 MAX 7720 MIN .00 AC-FT 220900
WTR YR 1984 TOTAL 88662.89 MEAN 242 MAX 9830 MIN .00 AC-FT 175900

## 06914000 POTTAWATOMIE CREEK NEAR GARNETT, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-70, 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1933 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| OCT | | | | | |
| 27... | 13:15 | 1.6 | 251 | 7.2 | -- |
| DEC | | | | | |
| 05... | 13:05 | 204 | 306 | 8.2 | 4.0 |
| JAN | | | | | |
| 10... | 11:55 | 154 | 420 | 8.3 | 0.0 |
| MAR | | | | | |
| 05... | 10:05 | 226 | 283 | 8.2 | 5.5 |
| APR | | | | | |
| 13... | 11:25 | 832 | 219 | 7.5 | 12.0 |
| MAY | | | | | |
| 24... | 09:25 | 38 | 331 | 7.6 | 19.0 |
| JUL | | | | | |
| 23... | 16:35 | 1.4 | 450 | 6.7 | 29.0 |

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1933 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|
| OCT | | | | | |
| 27... | 13:15 | 1.6 | 96 | 0.41 | -- |
| DEC | | | | | |
| 05... | 13:05 | 204 | 103 | 57 | -- |
| JAN | | | | | |
| 10... | 11:55 | 154 | 57 | 24 | -- |
| APR | | | | | |
| 13... | 11:25 | 832 | 350 | 786 | 99 |
| MAY | | | | | |
| 24... | 09:25 | 38 | 143 | 15 | -- |
| JUL | | | | | |
| 23... | 16:35 | 1.4 | 24 | 0.09 | -- |

## 06914995 HILLSDALE LAKE NEAR HILLSDALE, KS

LOCATION.--Lat 38 deg 39 min 36 sec, long 94 deg 53 min 50 sec, in NE1/4 SW1/4 NW1/4 sec.17, T.16 S., R.23 E., Miami County, Hydrologic Unit 10290102, in control tower at dam on Big Bull Creek, 2.5 mi west of Hillsdale, and 18.2 mi above mouth.

DRAINAGE AREA.--144 sq mi.

PERIOD OF RECORD.--May 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Sept. 19, 1981. Total capacity, 315,600 acre-ft, consisting of the following: Conservation pool, 76,270 acre-ft between elevations 860.0 ft and 917.0 ft; flood control pool, 83,570 acre-ft between elevations 917.0 ft and 931.0 ft; and surcharge pool, 155,800 acre-ft between elevations 931.0 ft and 948.0 ft. Reservoir is used for flood control, water supply, water quality control, fish and wildlife, and recreation. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 915.00 ft June 27, 1984, contents, 67,500 acre-ft; minimum elevation observed, 886.74 ft May 1, 1982, contents, 5,030 acre-ft.

EXTREMES FOR CURRENT OF RECORD.--Maximum elevation observed, 915.00 ft June 27, contents, 67,500 acre-ft; minimum elevation, 892.76 ft Dec. 24 to Jan. 30, contents, 11,250 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made in 1969 by Corps of Engineers)

| | | | |
|---|---|---|---|
| 885 | 3,870 | 905 | 33,970 |
| 890 | 7,990 | 910 | 48,700 |
| 895 | 14,340 | 915 | 67,500 |
| 900 | 22,780 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 898.06 | 899.22 | 896.42 | 892.76 | 893.06 | 892.80 | 899.60 | 900.25 | 899.84 | 912.78 | 900.95 | 900.32 |
| 2 | 898.03 | 899.24 | 896.01 | 892.76 | 893.06 | 892.76 | 900.00 | 900.27 | 899.85 | 912.32 | 900.93 | 900.32 |
| 3 | 898.02 | 899.31 | 895.70 | 892.76 | 893.06 | 892.90 | 900.25 | 900.14 | 899.86 | 911.82 | 900.91 | 900.29 |
| 4 | 898.03 | 899.21 | 895.39 | 892.76 | 893.13 | 893.10 | 900.11 | 899.95 | 899.87 | 911.42 | 900.90 | 900.27 |
| 5 | 898.02 | 899.11 | 894.96 | 892.76 | 893.16 | 893.23 | 899.90 | 899.74 | 899.87 | 910.97 | 900.87 | 900.24 |
| 6 | 898.00 | 899.01 | 894.31 | 892.76 | 893.16 | 893.26 | 899.64 | 899.56 | 899.88 | 910.56 | 900.86 | 900.19 |
| 7 | 897.98 | 898.92 | 894.03 | 892.76 | 893.16 | 893.20 | 899.56 | 899.35 | 899.85 | 910.07 | 900.85 | 900.14 |
| 8 | 897.98 | 898.77 | 893.55 | 892.76 | 893.23 | 893.10 | 900.80 | 899.15 | 900.03 | 909.57 | 900.84 | 900.20 |
| 9 | 897.96 | 898.64 | 893.25 | 892.76 | 893.26 | 893.06 | 900.91 | 898.95 | 909.60 | 909.26 | 900.82 | 900.18 |
| 10 | 897.95 | 898.32 | 893.23 | 892.76 | 893.31 | 893.06 | 900.75 | 898.90 | 910.40 | 909.25 | 900.80 | 900.17 |
| 11 | 898.08 | 897.93 | 893.21 | 892.76 | 893.37 | 893.06 | 900.85 | 898.93 | 910.52 | 909.07 | 900.79 | 900.15 |
| 12 | 898.05 | 897.59 | 893.18 | 892.76 | 893.44 | 893.06 | 902.21 | 898.96 | 910.59 | 908.55 | 900.76 | 900.13 |
| 13 | 898.04 | 897.23 | 893.16 | 892.76 | 893.46 | 893.00 | 902.10 | 899.00 | 910.62 | 908.33 | 900.75 | 900.12 |
| 14 | 898.01 | 896.88 | 893.13 | 892.76 | 893.46 | 892.90 | 901.89 | 899.00 | 910.64 | 907.88 | 900.73 | 900.25 |
| 15 | 898.01 | 896.48 | 893.10 | 892.76 | 893.46 | 892.92 | 901.68 | 899.00 | 910.67 | 907.28 | 900.70 | 900.23 |
| 16 | 898.00 | 896.10 | 893.06 | 892.76 | 893.53 | 893.16 | 901.43 | 899.00 | 910.68 | 906.67 | 900.68 | 900.20 |
| 17 | 897.99 | 896.03 | 893.02 | 892.76 | 893.56 | 893.46 | 901.17 | 899.00 | 910.68 | 906.03 | 900.66 | 900.19 |
| 18 | 897.98 | 896.03 | 893.00 | 892.76 | 893.52 | 895.10 | 900.90 | 899.01 | 910.66 | 905.38 | 900.65 | 900.19 |
| 19 | 898.14 | 896.05 | 892.95 | 892.76 | 893.47 | 897.50 | 900.64 | 899.13 | 910.66 | 904.70 | 900.62 | 900.18 |
| 20 | 898.24 | 896.04 | 892.91 | 892.76 | 893.40 | 898.21 | 900.48 | 899.19 | 910.70 | 904.03 | 900.59 | 900.17 |
| 21 | 898.29 | 896.03 | 892.86 | 892.76 | 893.36 | 898.86 | 900.91 | 899.21 | 913.70 | 903.34 | 900.60 | 900.14 |
| 22 | 898.30 | 896.07 | 892.82 | 892.76 | 893.30 | 899.18 | 901.08 | 899.21 | A | 902.67 | 900.58 | 900.14 |
| 23 | 898.30 | 896.12 | 892.79 | 892.76 | 893.26 | 899.38 | 900.94 | 899.23 | A | 901.92 | 900.55 | 900.13 |
| 24 | 898.30 | 896.15 | 892.76 | 892.76 | 893.20 | 899.92 | 900.74 | 899.20 | A | 901.40 | 900.52 | 900.14 |
| 25 | 898.28 | 896.16 | 892.76 | 892.76 | 893.10 | 900.19 | 900.49 | 899.22 | 914.92 | 901.12 | 900.48 | 900.09 |
| 26 | 898.27 | 896.19 | 892.76 | 892.76 | 893.06 | 900.81 | 900.22 | 899.21 | 914.96 | 901.08 | 900.46 | 900.06 |
| 27 | 898.25 | 897.08 | 892.76 | 892.76 | 893.06 | 900.93 | 899.96 | 899.56 | 914.52 | 901.06 | 900.44 | 900.06 |
| 28 | 898.25 | 897.19 | 892.76 | 892.76 | 893.00 | 900.78 | 899.65 | 899.72 | 914.17 | 901.05 | 900.43 | 900.05 |
| 29 | 898.23 | 896.97 | 892.76 | 892.76 | 892.90 | 900.56 | 899.89 | 899.78 | 913.85 | 901.01 | 900.42 | 900.01 |
| 30 | 898.30 | 896.71 | 892.76 | 892.76 | --- | 900.33 | 900.15 | 899.81 | 913.22 | 901.00 | 900.40 | 899.98 |
| 31 | 898.30 | --- | 892.76 | 892.97 | --- | 900.07 | --- | 899.81 | --- | 900.97 | 900.36 | --- |
| MEAN | 898.12 | 897.36 | 893.49 | 892.77 | 893.26 | 895.93 | 900.64 | 899.37 | --- | 906.21 | 900.67 | 900.16 |
| MAX | 898.30 | 899.31 | 896.42 | 892.97 | 893.56 | 900.93 | 902.21 | 900.27 | 914.96 | 912.78 | 900.95 | 900.32 |
| MIN | 897.95 | 896.03 | 892.76 | 892.76 | 892.90 | 892.76 | 899.56 | 898.90 | 899.84 | 900.97 | 900.36 | 899.98 |
| (+) | 19,660 | 16,980 | 11,250 | 11,530 | 11,440 | 22,910 | 23,070 | 22,420 | 60,310 | 24,690 | 23,480 | 22,740 |
| (#) | +60 | -2,680 | -5,730 | +280 | -90 | +11,470 | +160 | -650 | +37,890 | -35,620 | -1,210 | -740 |

CAL YR 1983 ........................ (#) -10,320
WTR YR 1984 ........................ (#) +3,140

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.
A NO GAGE-HEIGHT RECORD.

## 06915000 BIG BULL CREEK NEAR HILLSDALE, KS

LOCATION.--Lat 38 deg 38 min 12 sec, long 94 deg 53 min 29 sec, in SW1/4 SW1/4 SE1/4 sec.20, T.16 S., R.23 E., Miami County, Hydrologic Unit 10290102, on right bank 1.0 mi upstream from Tenmile Creek, 3.0 mi southwest of Hillsdale, and 16.2 mi upstream from mouth.

DRAINAGE AREA.--147 sq mi.

PERIOD OF RECORD.--July 1958 to current year. Records for 1949 to 1953 published in WSP 1146, 1176, 1210, 1240, and 1280 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1919: 1958. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 854.49 ft National Geodetic Vertical Datum of 1929. Prior to July 29, 1958, water-stage recorder and nonrecording gage operated 1,850 ft downstream at datum 6.00 ft lower. All records from this site were later discredited.

REMARKS.--Records good. Flow completely regulated since 1981 by Hillsdale Lake (see sta 06914995).

AVERAGE DISCHARGE.--26 years, 97.2 cu ft per sec, 70,420 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,600 cu ft per sec Sept. 13, 1961, gage height, 20.85 ft; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1910, 21.2 ft July 11, 1951, present site and datum, discharge, 45,200 cu ft per sec, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,190 cu ft per sec July 6, gage height, 6.12 ft; maximum gage height, 14.43 ft June 9, backwater from Tenmile Creek; minimum discharge, 0.75 cu ft per sec July 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 175 | 17 | 295 | 52 | 9.1 | 89 | 383 | 2.9 | 5.8 | 1140 | 3.9 | 3.6 |
| 2 | 90 | 17 | 361 | 53 | 9.1 | 47 | 384 | 114 | 5.8 | 1130 | 3.9 | 3.6 |
| 3 | 5.3 | 122 | 534 | 53 | 9.1 | 9.9 | 389 | 291 | 5.8 | 1130 | 3.9 | 3.6 |
| 4 | 5.2 | 122 | 519 | 54 | 9.1 | 23 | 385 | 284 | 5.2 | 1120 | 3.9 | 3.6 |
| 5 | 5.3 | 122 | 513 | 56 | 8.9 | 32 | 383 | 276 | 5.0 | 1110 | 3.9 | 3.6 |
| 6 | 5.3 | 118 | 509 | 56 | 8.8 | 94 | 379 | 267 | 5.3 | 1110 | 3.9 | 3.6 |
| 7 | 5.3 | 115 | 502 | 55 | 9.4 | 92 | 375 | 264 | 5.3 | 1100 | 3.7 | 2.1 |
| 8 | 5.3 | 139 | 493 | 56 | 9.9 | 90 | 390 | 254 | 5.8 | 1090 | 3.9 | 2.3 |
| 9 | 5.3 | 194 | 291 | 55 | 9.9 | 90 | 392 | 249 | 5.3 | 529 | 3.9 | 2.1 |
| 10 | 5.3 | 249 | 60 | 44 | 9.9 | 91 | 389 | 121 | 4.4 | 1.6 | 3.9 | 2.1 |
| 11 | 6.2 | 389 | 62 | 7.9 | 19 | 90 | 384 | 6.4 | 3.1 | 582 | 3.9 | 2.5 |
| 12 | 5.8 | 381 | 60 | 7.5 | 19 | 90 | 381 | 6.4 | 2.5 | 1090 | 3.9 | 2.3 |
| 13 | 5.7 | 370 | 60 | 7.6 | 12 | 93 | 378 | 6.4 | 5.3 | 635 | 3.9 | 1.0 |
| 14 | 5.7 | 367 | 59 | 7.0 | 11 | 94 | 375 | 6.4 | 5.8 | 730 | 3.9 | 2.5 |
| 15 | 5.7 | 365 | 59 | 7.3 | 11 | 93 | 373 | 6.4 | 5.9 | 1100 | 3.9 | 1.6 |
| 16 | 5.7 | 364 | 63 | 7.7 | 11 | 90 | 372 | 6.4 | 5.8 | 1090 | 3.9 | .85 |
| 17 | 5.7 | 174 | 60 | 7.7 | 50 | 90 | 371 | 6.4 | 5.8 | 1080 | 3.9 | 1.1 |
| 18 | 5.7 | 9.1 | 60 | 7.7 | 94 | 92 | 369 | 6.4 | 5.8 | 1070 | 3.9 | 1.2 |
| 19 | 7.2 | 9.0 | 60 | 7.7 | 90 | 49 | 366 | 6.7 | 5.4 | 1070 | 3.9 | 1.2 |
| 20 | 7.4 | 9.0 | 61 | 7.7 | 90 | 24 | 367 | 7.9 | 5.3 | 1060 | 3.9 | 1.2 |
| 21 | 5.8 | 9.0 | 61 | 8.0 | 90 | 11 | 366 | 7.0 | 5.3 | 1050 | 3.9 | 1.2 |
| 22 | 5.7 | 9.7 | 60 | 8.3 | 90 | 5.2 | 373 | 7.0 | 4.8 | 1040 | 3.6 | 1.2 |
| 23 | 6.2 | 10 | 58 | 8.3 | 90 | 3.8 | 370 | 6.5 | 4.0 | 1030 | 3.6 | 1.7 |
| 24 | 6.2 | 9.6 | 55 | 8.3 | 89 | 23 | 369 | 6.4 | 1.8 | 736 | 3.6 | 1.7 |
| 25 | 8.4 | 9.7 | 55 | 8.6 | 89 | 6.6 | 367 | 6.4 | 2.2 | 213 | 3.6 | 1.7 |
| 26 | 12 | 9.7 | 55 | 9.1 | 92 | 128 | 367 | 6.4 | 4.8 | 4.0 | 3.6 | 1.7 |
| 27 | 12 | 33 | 54 | 9.1 | 104 | 398 | 362 | 12 | 640 | 3.9 | 3.6 | 1.7 |
| 28 | 13 | 128 | 53 | 9.1 | 92 | 390 | 357 | 7.2 | 1150 | 3.9 | 3.6 | 1.6 |
| 29 | 13 | 302 | 53 | 9.3 | 90 | 389 | 264 | 6.4 | 1150 | 3.9 | 3.6 | 1.2 |
| 30 | 17 | 299 | 53 | 9.1 | --- | 387 | 5.9 | 6.4 | 1150 | 3.9 | 3.6 | 1.1 |
| 31 | 17 | --- | 53 | 9.1 | --- | 384 | --- | 5.9 | --- | 3.9 | 3.6 | --- |
| TOTAL | 484.4 | 4472.0 | 5291 | 706.1 | 1326.2 | 3538.5 | 10785.9 | 2266.3 | 4217.3 | 23060.1 | 117.7 | 60.45 |
| MEAN | 15.6 | 149 | 171 | 22.8 | 45.7 | 116 | 360 | 73.1 | 141 | 744 | 3.80 | 2.02 |
| MAX | 175 | 389 | 534 | 56 | 104 | 398 | 392 | 291 | 1150 | 1140 | 3.9 | 3.6 |
| MIN | 5.2 | 9.0 | 53 | 7.0 | 8.8 | 3.8 | 5.9 | 2.9 | 1.8 | 1.6 | 3.6 | .85 |
| AC-FT | 961 | 8870 | 10490 | 1400 | 2630 | 7120 | 21390 | 4500 | 8370 | 45740 | 233 | 120 |

CAL YR 1983 TOTAL 49957.20 MEAN 137 MAX 534 MIN 4.1 AC-FT 99090
WTR YR 1984 TOTAL 56375.95 MEAN 154 MAX 1150 MIN .85 AC-FT 111800

BEST COPY AVAILABLE

## 06916600 MARAIS DES CYGNES RIVER NEAR KANSAS-MISSOURI STATE LINE, KS

LOCATION.--Lat 38 deg 13 min 21 sec, long 94 deg 40 min 04 sec, in NE1/4 SE1/4 NW1/4 sec.16, T.21 S., R.25 E., Linn County, Hydrologic Unit 10290102, on right bank, 1.7 mi downstream from Big Sugar Creek, 0.8 mi upstream from Kansas-Missouri State line, and at mile 313.5.

AREA.--3,230 sq mi, approximately.

P_RIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 757.06 ft National Geodetic Vertical Datum of 1929. Prior to Jan. 15, 1959, nonrecording gage 6.3 mi downstream at datum 15.62 ft lower.

REMARKS.--Records good. Natural flow of stream slightly affected by Pomona Lake since 1964 (see sta 06912490), Melvern Lake since 1973 (see sta 06910997), retention of overbank flow in wildlife refuge ponds, capacity, 5,500 acre-ft, power developments, and by numerous small diversions above station. Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--26 years, 2,033 cu ft per sec, 1,473,000 acre ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,400 cu ft per sec Sept. 16, 1961, gage height, 33.93 ft; no flow at times in 1963-64.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 14, 1951, reached a stage of 41.2 ft, from floodmark, discharge, 168,000 cu ft per sec, from rating curve extended above 110,000 cu ft per sec on basis of velocity-area study. Flood of Nov. 18, 1928, reached a stage about 3.7 ft lower, discharge, 106,000 cu ft per sec.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 21 | 0400 | 22,700 | 28.34 | May 1 | 0200 | 14,300 | 21.39 |
| Apr. 3 | 1800 | 10,500 | 16.82 | June 13 | 1200 | *31,800 | 30.58 |
| Apr. 10 | unknown | unknown | unknown | June 23 | 2100 | 17,800 | 24.95 |
| Apr. 23 | 1500 | 14,500 | 21.66 | | | | |

Minimum discharge, 1.1 cu ft per sec Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 922 | 106 | 2890 | 532 | 678 | 2660 | 5540 | 13400 | 825 | 5510 | 77 | 45 |
| 2 | 860 | 1620 | 2330 | 471 | 798 | 2020 | 5610 | 9560 | 639 | 4610 | 74 | 40 |
| 3 | 452 | 3140 | 2270 | 479 | 608 | 1610 | 9450 | 6500 | 526 | 4280 | 72 | 36 |
| 4 | 183 | 2000 | 2990 | 482 | 754 | 1560 | 10000 | 6960 | 470 | 3960 | 69 | 35 |
| 5 | 140 | 1380 | 3610 | 492 | 624 | 3080 | 9650 | 6830 | 432 | 3080 | 72 | 31 |
| 6 | 64 | 760 | 3050 | 589 | 567 | 4070 | 6610 | 5150 | 391 | 1960 | 69 | 10 |
| 7 | 35 | 527 | 2400 | 1000 | 474 | 2590 | 4540 | 4010 | 350 | 1900 | 71 | 13 |
| 8 | 30 | 420 | 1990 | 1670 | 402 | 1780 | 11200 | 3630 | 644 | 2250 | 70 | 9.8 |
| 9 | 29 | 363 | 1730 | 2930 | 325 | 1400 | 16300 | 3340 | 11700 | 2180 | 65 | 11 |
| 10 | 25 | 401 | 1250 | 3450 | 293 | 1190 | 16800 | 2960 | 18800 | 1320 | 48 | 5.5 |
| 11 | 12 | 589 | 664 | 2810 | 345 | 1380 | 16400 | 2830 | 20700 | 671 | 15 | 8.2 |
| 12 | 6.0 | 1130 | 2640 | 1910 | 1150 | 1530 | 14600 | 2630 | 26400 | 2430 | 7.7 | 38 |
| 13 | 5.2 | 996 | 4470 | 1760 | 1700 | 1600 | 14600 | 2520 | 31300 | 1850 | 4.8 | 16 |
| 14 | 5.5 | 833 | 2250 | 1710 | 1150 | 1870 | 14100 | 2100 | 28700 | 1180 | 3.6 | 11 |
| 15 | 3.3 | 722 | 1330 | 1610 | 571 | 2010 | 10000 | 1130 | 24400 | 813 | 3.1 | 18 |
| 16 | 2.4 | 650 | 924 | 704 | 675 | 1830 | 4850 | 830 | 18200 | 1270 | 2.7 | 20 |
| 17 | 2.3 | 589 | 810 | 489 | 588 | 4920 | 5240 | 748 | 9380 | 1220 | 2.4 | 20 |
| 18 | 2.3 | 444 | 713 | 400 | 564 | 8410 | 7190 | 600 | 5320 | 1170 | 2.3 | 17 |
| 19 | 65 | 192 | 650 | 350 | 757 | 16000 | 7790 | 503 | 6370 | 1140 | 2.4 | 14 |
| 20 | 104 | 147 | 600 | 300 | 529 | 21400 | 7810 | 940 | 4320 | 1110 | 2.1 | 13 |
| 21 | 293 | 141 | 550 | 300 | 772 | 22500 | 10600 | 1430 | 8390 | 1090 | 2.1 | 13 |
| 22 | 346 | 146 | 500 | 277 | 716 | 21700 | 13800 | 869 | 15900 | 1070 | 2.2 | 11 |
| 23 | 361 | 536 | 500 | 258 | 639 | 21100 | 14300 | 721 | 17500 | 1040 | 10 | 7.5 |
| 24 | 272 | 1120 | 500 | 284 | 568 | 19800 | 11700 | 564 | 17000 | 1020 | 37 | 4.3 |
| 25 | 172 | 1130 | 500 | 320 | 515 | 12100 | 6270 | 481 | 8550 | 835 | 28 | 2.7 |
| 26 | 133 | 888 | 550 | 345 | 529 | 7710 | 4830 | 546 | 2310 | 451 | 19 | 1.6 |
| 27 | 108 | 829 | 600 | 372 | 1650 | 8390 | 5010 | 837 | 2240 | 141 | 16 | 1.1 |
| 28 | 93 | 4190 | 657 | 410 | 4100 | 9130 | 4550 | 3400 | 4160 | 93 | 35 | 5.1 |
| 29 | 82 | 6560 | 666 | 454 | 3590 | 8560 | 4750 | 3040 | 4910 | 89 | 56 | 13 |
| 30 | 79 | 5030 | 642 | 490 | --- | 6910 | 12200 | 1890 | 5220 | 86 | 55 | 3.7 |
| 31 | 84 | --- | 590 | 526 | --- | 5790 | --- | 1150 | --- | 80 | 43 | --- |
| TOTAL | 4971.0 | 37579 | 46016 | 27974 | 27430 | 226900 | 286290 | 92099 | 294045 | 49897 | 1036.4 | 474.3 |
| MEAN | 160 | 1253 | 1484 | 902 | 946 | 7319 | 9543 | 2971 | 9802 | 1610 | 33.4 | 15.8 |
| MAX | 922 | 6560 | 4470 | 3450 | 4100 | 22500 | 16800 | 13400 | 31300 | 5510 | 77 | 45 |
| MIN | 2.3 | 106 | 500 | 258 | 293 | 1190 | 4540 | 481 | 350 | 80 | 2.1 | 1.1 |
| AC-FT | 9860 | 74540 | 91270 | 55490 | 54410 | 450100 | 567900 | 182700 | 583200 | 98970 | 2060 | 941 |

CAL YR 1983 TOTAL 1052722.9 MEAN 2884 MAX 30800 MIN 2.1 AC-FT 2088000
WTR YR 1984 TOTAL 1094711.7 MEAN 2991 MAX 31300 MIN 1.1 AC-FT 2171000

## 06917000 LITTLE OSAGE RIVER AT FULTON, KS

LOCATION.--Lat 38 deg 01 min 09 sec, long 94 deg 42 min 48 sec, in SE1/4 NE1/4 NE1/4 sec.25, T.23 S., R.24 E., Bourbon County, Hydrologic Unit 10290103, on right bank at downstream side of bridge on U.S. Highway 69, 0.8 mi north of Fulton.

DRAINAGE AREA.--295 sq mi.

PERIOD OF RECORD.--November 1948 to current year.

REVISED RECORDS.--WSP 1440: 1949(P), 1950(M). WDR KS-75: 1974.

GAGE.--Water-stage recorder. Datum of gage is 776.37 ft National Geodetic Vertical Datum of 1929. Prior to May 28, 1952, nonrecording gage at present site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--35 years (water years 1950-84), 204 cu ft per sec, 147,800 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,300 cu ft per sec July 1, 1969, gage height, 30.03 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 19 | 0500 | *7,550 | 24.09 | May 3 | 1800 | 3,090 | 14.42 |
| Apr. 8 | 1700 | 5,480 | 20.39 | June 10 | 0700 | 4,400 | 17.81 |
| Apr. 21 | 0800 | 3,300 | 14.98 | | | | |

No flow Sept. 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .01 | 2.4 | 183 | 47 | 63 | 839 | 253 | 499 | 46 | 55 | .70 | .11 |
| 2 | .01 | 960 | 158 | 50 | 56 | 850 | 570 | 308 | 38 | 42 | .53 | .09 |
| 3 | .01 | 492 | 561 | 50 | 53 | 622 | 1140 | 2280 | 33 | 30 | .44 | .09 |
| 4 | .01 | 322 | 884 | 53 | 50 | 1140 | 571 | 1230 | 28 | 25 | .42 | .06 |
| 5 | .01 | 229 | 457 | 74 | 46 | 910 | 397 | 543 | 27 | 20 | .41 | .04 |
| 6 | .01 | 126 | 271 | 189 | 37 | 516 | 292 | 506 | 26 | 17 | .36 | .02 |
| 7 | .01 | 92 | 200 | 219 | 34 | 393 | 662 | 461 | 23 | 24 | .45 | .01 |
| 8 | .01 | 74 | 162 | 222 | 32 | 331 | 4750 | 323 | 503 | 31 | .55 | .07 |
| 9 | .01 | 61 | 141 | 192 | 34 | 280 | 4130 | 239 | 2620 | 20 | .97 | .12 |
| 10 | .01 | 125 | 127 | 143 | 54 | 256 | 981 | 199 | 3560 | 14 | 1.2 | .12 |
| 11 | .02 | 119 | 319 | 107 | 73 | 241 | 623 | 173 | 865 | 11 | 1.1 | .10 |
| 12 | .04 | 104 | 390 | 94 | 777 | 314 | 1430 | 149 | 367 | 9.7 | .80 | .08 |
| 13 | .04 | 88 | 234 | 78 | 453 | 848 | 868 | 134 | 232 | 8.4 | .51 | .08 |
| 14 | .03 | 72 | 180 | 61 | 209 | 588 | 441 | 119 | 168 | 7.5 | .39 | .04 |
| 15 | .02 | 60 | 140 | 60 | 151 | 439 | 328 | 106 | 131 | 6.8 | .26 | .04 |
| 16 | .04 | 50 | 112 | 54 | 131 | 369 | 277 | 96 | 113 | 5.3 | .19 | .03 |
| 17 | .23 | 42 | 96 | 50 | 114 | 1040 | 235 | 88 | 93 | 5.1 | .20 | .03 |
| 18 | .25 | 37 | 78 | 48 | 112 | 2210 | 204 | 80 | 74 | 4.7 | .20 | .04 |
| 19 | .68 | 295 | 74 | 41 | 104 | 7410 | 186 | 72 | 61 | 3.9 | .16 | .03 |
| 20 | 1.6 | 109 | 70 | 37 | 93 | 5170 | 206 | 71 | 56 | 3.5 | .13 | .01 |
| 21 | 483 | 67 | 65 | 32 | 82 | 1230 | 2800 | 96 | 69 | 3.3 | .12 | .00 |
| 22 | 164 | 125 | 60 | 31 | 76 | 622 | 1340 | 84 | 60 | 2.8 | .77 | .00 |
| 23 | 61 | 915 | 55 | 34 | 71 | 435 | 627 | 69 | 167 | 2.3 | .52 | .01 |
| 24 | 32 | 421 | 50 | 39 | 86 | 1040 | 412 | 60 | 226 | 1.9 | .34 | .01 |
| 25 | 17 | 218 | 51 | 43 | 61 | 977 | 304 | 51 | 103 | 1.6 | .25 | .01 |
| 26 | 11 | 154 | 48 | 53 | 522 | 859 | 247 | 45 | 60 | 1.4 | .19 | .01 |
| 27 | 7.6 | 460 | 53 | 65 | 2600 | 1100 | 539 | 46 | 48 | 1.3 | .18 | .01 |
| 28 | 5.2 | 1110 | 59 | 67 | 1320 | 620 | 368 | 91 | 51 | 1.2 | .20 | .01 |
| 29 | 4.2 | 470 | 58 | 75 | 892 | 436 | 254 | 128 | 54 | 1.1 | .20 | .01 |
| 30 | 3.1 | 253 | 51 | 72 | --- | 324 | 1440 | 80 | 46 | .92 | .20 | .01 |
| 31 | 2.7 | --- | 45 | 63 | --- | 268 | --- | 59 | --- | .76 | .16 | --- |
| TOTAL | 793.85 | 7652.4 | 5432 | 2443 | 8666 | 32677 | 26875 | 8485 | 9948 | 362.48 | 13.20 | 1.29 |
| MEAN | 25.6 | 255 | 175 | 78.8 | 299 | 1054 | 896 | 274 | 332 | 11.7 | .43 | .043 |
| MAX | 483 | 1110 | 884 | 222 | 2600 | 7410 | 4750 | 2280 | 3560 | 55 | 1.2 | .12 |
| MIN | .01 | 2.4 | 45 | 31 | 32 | 241 | 186 | 45 | 23 | .76 | .12 | .00 |
| AC-FT | 1570 | 15180 | 10770 | 4850 | 17190 | 64810 | 53310 | 16830 | 19730 | 719 | 26 | 2.6 |

CAL YR 1983 TOTAL 103468.83 MEAN 283 MAX 7110 MIN .01 AC-FT 205200
WTR YR 1984 TOTAL 103349.22 MEAN 282 MAX 7410 MIN .00 AC-FT 205000

## 06917380 MARMATON RIVER NEAR MARMATON, KS

LOCATION.--Lat 37 deg 49 min 03 sec, long 94 deg 47 min 30 sec, in SW1/4 NE1/4 NW1/4 sec.4, T.26 S., R.24 E., Bourbon County, Hydrologic Unit 10290104, on left bank 150 ft downstream from Cedar Creek, 2.0 mi southeast of Marmaton, and at mile 55.7.

DRAINAGE AREA.--292 sq mi.

PERIOD OF RECORD.--May 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 780.66 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--13 years, 269 cu ft per sec, 194,900 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 cu ft per sec Mar. 10, 1974, gage height, 34.69 ft; no flow several days during August to November 1978, September 1980 and Sept. 14, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1915 about 40,000 cu ft per sec on Sept. 7, 1915 and May 1935, from information by State of Kansas and Missouri-Kansas-Texas Railroad.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Oct. 21 | 0900 | 6,960 | 21.07 | Apr. 8 | 1400 | 7,840 | 22.71 |
| Dec. 3 | 2100 | 3,420 | 13.56 | Apr. 21 | 0900 | 7,210 | 21.55 |
| Feb. 26 | 1700 | 3,350 | 13.40 | June 8 | 2100 | 5,660 | 18.51 |
| Mar. 19 | 0800 | *12,400 | 30.24 | | | | |

Minimum, 0.02 cu ft per sec Sept. 26, 27, 30.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.8 | 25 | 182 | 37 | 79 | 864 | 262 | 163 | 24 | 44 | .33 | .94 |
| 2 | 8.4 | 26 | 165 | 38 | 77 | 760 | 460 | 120 | 19 | 29 | .31 | 1.0 |
| 3 | 12 | 94 | 160 | 38 | 76 | 444 | 920 | 596 | 16 | 20 | .31 | 1.2 |
| 4 | 15 | 327 | 1270 | 47 | 71 | 1360 | 430 | 410 | 14 | 25 | .34 | .93 |
| 5 | 16 | 139 | 410 | 106 | 63 | 660 | 291 | 205 | 12 | 28 | .31 | .60 |
| 6 | 14 | 89 | 263 | 244 | 56 | 358 | 230 | 276 | 11 | 66 | .34 | .44 |
| 7 | 13 | 63 | 200 | 224 | 50 | 279 | 683 | 330 | 9.5 | 66 | .38 | .38 |
| 8 | 14 | 46 | 167 | 194 | 47 | 229 | 6490 | 199 | 3150 | 27 | .38 | .39 |
| 9 | 14 | 48 | 148 | 171 | 58 | 195 | 2370 | 148 | 3270 | 16 | .42 | .54 |
| 10 | 13 | 60 | 134 | 123 | 104 | 180 | 690 | 123 | 1190 | 11 | .38 | .32 |
| 11 | 16 | 84 | 545 | 93 | 107 | 167 | 495 | 105 | 435 | 8.6 | .31 | .24 |
| 12 | 15 | 78 | 383 | 71 | 888 | 594 | 990 | 89 | 213 | 6.8 | .23 | .19 |
| 13 | 14 | 66 | 234 | 60 | 266 | 717 | 521 | 79 | 142 | 4.7 | .25 | .15 |
| 14 | 12 | 55 | 179 | 50 | 172 | 343 | 289 | 69 | 101 | 3.5 | .28 | .12 |
| 15 | 11 | 45 | 139 | 42 | 137 | 265 | 233 | 61 | 78 | 3.8 | .35 | .11 |
| 16 | 10 | 39 | 111 | 41 | 116 | 268 | 205 | 55 | 60 | 3.6 | .34 | .10 |
| 17 | 12 | 48 | 95 | 39 | 93 | 1820 | 179 | 51 | 67 | 3.3 | .31 | .09 |
| 18 | 12 | 52 | 90 | 36 | 85 | 3390 | 159 | 46 | 37 | 2.4 | .31 | .08 |
| 19 | 14 | 527 | 85 | 32 | 81 | 10400 | 145 | 41 | 110 | 1.9 | .20 | .08 |
| 20 | 133 | 222 | 80 | 29 | 67 | 2490 | 276 | 44 | 83 | 1.5 | .20 | .07 |
| 21 | 4270 | 124 | 69 | 26 | 61 | 831 | 5260 | 49 | 139 | 1.2 | .20 | .06 |
| 22 | 396 | 101 | 61 | 26 | 57 | 476 | 1040 | 43 | 65 | 1.4 | .40 | .06 |
| 23 | 170 | 951 | 53 | 30 | 53 | 366 | 483 | 36 | 1200 | 1.5 | .31 | .07 |
| 24 | 100 | 456 | 47 | 34 | 49 | 1560 | 315 | 30 | 293 | 1.4 | .17 | .06 |
| 25 | 62 | 240 | 40 | 36 | 44 | 878 | 239 | 25 | 110 | 1.0 | 2.6 | .05 |
| 26 | 43 | 176 | 38 | 54 | 1760 | 699 | 194 | 20 | 66 | .85 | 2.9 | .02 |
| 27 | 32 | 1450 | 42 | 93 | 2140 | 789 | 262 | 30 | 50 | .59 | 2.0 | .04 |
| 28 | 34 | 1190 | 49 | 116 | 1670 | 504 | 250 | 83 | 40 | .53 | 1.3 | .05 |
| 29 | 29 | 368 | 44 | 116 | 855 | 410 | 165 | 64 | 36 | .39 | 1.3 | .04 |
| 30 | 28 | 235 | 37 | 105 | --- | 290 | 231 | 43 | 40 | .32 | 1.2 | .03 |
| 31 | 26 | --- | 35 | 99 | --- | 249 | --- | 31 | --- | .29 | 1.0 | --- |
| TOTAL | 5564.2 | 7424 | 6555 | 2440 | 9384 | 32813 | 24778 | 3664 | 11040.5 | 384.87 | 19.66 | 8.45 |
| MEAN | 179 | 247 | 211 | 78.7 | 324 | 1058 | 826 | 118 | 368 | 12.4 | .63 | .28 |
| MAX | 4270 | 1450 | 1270 | 244 | 2140 | 10400 | 6490 | 596 | 3270 | 66 | 2.9 | 1.2 |
| MIN | 7.8 | 25 | 35 | 26 | 44 | 167 | 145 | 20 | 9.5 | .29 | .17 | .02 |
| AC-FT | 11040 | 14730 | 13000 | 4840 | 18610 | 65080 | 49150 | 7270 | 21900 | 763 | 39 | 17 |

CAL YR 1983 TOTAL 132179.70 MEAN 362 MAX 10600 MIN .00 AC-FT 262200
WTR YR 1984 TOTAL 104075.68 MEAN 284 MAX 10400 MIN .02 AC-FT 206400

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ARKANSAS RIVER BASIN

## 07137000 FRONTIER DITCH NEAR COOLIDGE, KS

LOCATION.--Lat 38 deg 02 min 18 sec, long 102 deg 02 min 19 sec, in SW1/4 SE1/4 NE1/4 sec.21, T.23 S., R.43 W., Hamilton County, Hydrologic Unit 11030001, on left bank 0.3 mi east of Colorado-Kansas State line, 0.5 mi downstream from Holly drain diversion, 1.5 mi west of Coolidge, and 2.3 mi downstream from diversion of the Arkansas River.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1731: 1951.

GAGE.--Water-stage recorders and Parshall flume. Datum of gage is 3,353.14 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. This ditch diverts water from the Arkansas River in Colorado for use in Kansas. These records and records for the Arkansas River near Coolidge represent total flow of the Arkansas River at the Colorado-Kansas State line.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 84 cu ft per sec Aug. 1, 1975; no flow for many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 25 | 27 | 32 | 40 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 22 | 26 | 25 | 36 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 32 | 26 | 19 | 32 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 30 | 26 | 16 | 32 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 31 | 26 | 12 | 29 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 31 | 24 | 10 | 25 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 33 | 22 | 17 | 22 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 31 | 24 | 33 | 20 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 24 | 24 | 31 | 20 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 27 | 28 | 21 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 28 | 30 | 11 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 18 | 36 | 30 | 5.3 |
| 13 | .00 | .00 | .00 | .00 | .00 | 6.8 | .00 | .00 | 17 | 32 | 37 | 20 |
| 14 | .00 | .00 | .00 | .00 | .00 | 23 | .00 | .00 | 16 | 32 | 34 | 21 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 17 | 32 | 23 | 20 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 20 | 62 | 23 | 14 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 18 | 24 | 25 | 16 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.5 | .28 | 25 | 15 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 13 | .00 | 24 | 14 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 16 | 14 | 23 | 13 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 22 | 31 | 25 | 25 | 19 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 24 | 37 | 24 | 24 | 22 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 24 | 35 | 24 | 16 | 18 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 26 | 31 | 22 | 12 | 15 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 26 | 32 | 22 | 24 | 16 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 26 | 34 | 20 | 22 | 21 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 22 | 33 | 19 | 26 | 24 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 22 | 33 | 21 | 28 | 21 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 25 | 32 | 20 | 36 | 15 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | 27 | 33 | 21 | 40 | 3.7 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 30 | --- | 28 | 40 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | 29.80 | .00 | 274.00 | 774.5 | 758.28 | 790 | 601.0 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .96 | .000 | 8.84 | 25.8 | 24.5 | 25.5 | 20.0 |
| MAX | .00 | .00 | .00 | .00 | .00 | 23 | .00 | 30 | 37 | 62 | 40 | 40 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.5 | .00 | 10 | 3.7 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | 59 | .00 | 543 | 1540 | 1500 | 1570 | 1190 |

CAL YR 1983 TOTAL 4115.81 MEAN 11.3 MAX 56 MIN .00 AC-FT 8160
WTR YR 1984 TOTAL 3227.58 MEAN 8.82 MAX 62 MIN .00 AC-FT 6400

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## 07137500 ARKANSAS RIVER NEAR COOLIDGE, KS
(National stream-quality accounting network station)

LOCATION.--Lat 38 deg 01 min 34 sec, long 102 deg 00 min 41 sec, in NW1/4 NE1/4 NW1/4 sec.26, T.23 S., R.43 W., Hamilton County, Hydrologic Unit 11030001, on right bank at downstream side of bridge, 1.0 mi south of Coolidge, and 1.9 mi downstream from Colorado-Kansas State line, and at mile 1,101.1.

DRAINAGE AREA.--25,410 sq mi, of which 1,708 sq mi is probably noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to October 1903, March to May 1921, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1341: 1903, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,330.84 ft National Geodetic Vertical Datum of 1929. May 5 to Oct. 31, 1903, nonrecording gage, and Mar. 1 to May 31, 1921, water-stage recorder at present site at different datum. Oct. 1, 1950, to Mar. 31, 1966, water-stage recorder at site 0.3 mi upstream at datum 3.00 ft higher.

REMARKS.--Records good except those for winter periods, which are fair. Combined flow of river and Frontier Ditch (see sta 07137000) represents entire flow that enters Kansas. Flow regulated since 1943 by John Martin Reservoir (see sta 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 500,000 acres, and return flow from irrigated areas.

AVERAGE DISCHARGE.--34 years, 179 cu ft per sec, 129,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 158,000 cu ft per sec June 17, 1965, gage height, 14.8 ft, present site and datum, from floodmarks, from rating curve extended above 13,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow for many days in 1903, 1954, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,670 cu ft per sec July 16, gage height, 8.88 ft; minimum, 59 cu ft per sec June 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 145 | 151 | 158 | 118 | 168 | 132 | 159 | 209 | 89 | 438 | 279 | 458 |
| 2 | 138 | 143 | 164 | 160 | 166 | 132 | 180 | 196 | 81 | 446 | 262 | 476 |
| 3 | 132 | 139 | 168 | 215 | 150 | 132 | 187 | 152 | 77 | 426 | 242 | 514 |
| 4 | 136 | 130 | 169 | 260 | 147 | 133 | 183 | 126 | 73 | 420 | 226 | 515 |
| 5 | 138 | 127 | 169 | 220 | 142 | 130 | 187 | 123 | 69 | 426 | 209 | 496 |
| 6 | 133 | 137 | 166 | 184 | 139 | 126 | 181 | 121 | 63 | 401 | 197 | 477 |
| 7 | 139 | 128 | 163 | 175 | 142 | 125 | 169 | 132 | 71 | 279 | 182 | 469 |
| 8 | 310 | 123 | 165 | 170 | 139 | 124 | 157 | 129 | 233 | 225 | 167 | 428 |
| 9 | 479 | 121 | 163 | 164 | 160 | 128 | 158 | 118 | 419 | 201 | 145 | 436 |
| 10 | 580 | 121 | 163 | 159 | 144 | 126 | 265 | 105 | 472 | 178 | 145 | 446 |
| 11 | 609 | 126 | 162 | 160 | 146 | 126 | 210 | 105 | 502 | 185 | 210 | 449 |
| 12 | 557 | 115 | 167 | 154 | 136 | 127 | 191 | 102 | 516 | 376 | 307 | 476 |
| 13 | 535 | 112 | 167 | 145 | 133 | 124 | 181 | 97 | 508 | 495 | 384 | 457 |
| 14 | 475 | 110 | 163 | 141 | 132 | 130 | 175 | 143 | 478 | 554 | 467 | 455 |
| 15 | 300 | 106 | 159 | 137 | 141 | 126 | 172 | 112 | 489 | 565 | 497 | 476 |
| 16 | 253 | 103 | 156 | 120 | 134 | 118 | 163 | 93 | 549 | 2120 | 509 | 491 |
| 17 | 223 | 106 | 154 | 105 | 134 | 114 | 162 | 91 | 600 | 2030 | 549 | 506 |
| 18 | 210 | 110 | 147 | 94 | 139 | 114 | 159 | 100 | 634 | 813 | 551 | 480 |
| 19 | 184 | 115 | 122 | 85 | 123 | 122 | 150 | 108 | 636 | 527 | 550 | 470 |
| 20 | 177 | 124 | 120 | 80 | 124 | 139 | 146 | 127 | 539 | 440 | 551 | 481 |
| 21 | 179 | 130 | 115 | 90 | 131 | 148 | 163 | 115 | 519 | 409 | 556 | 500 |
| 22 | 164 | 129 | 110 | 100 | 140 | 152 | 193 | 103 | 500 | 524 | 524 | 503 |
| 23 | 166 | 131 | 110 | 115 | 142 | 150 | 202 | 88 | 498 | 559 | 494 | 512 |
| 24 | 163 | 131 | 105 | 130 | 141 | 153 | 180 | 79 | 481 | 539 | 527 | 522 |
| 25 | 158 | 135 | 110 | 145 | 142 | 160 | 151 | 78 | 487 | 531 | 520 | 534 |
| 26 | 155 | 136 | 115 | 160 | 138 | 198 | 139 | 88 | 494 | 521 | 534 | 567 |
| 27 | 159 | 124 | 110 | 178 | 130 | 171 | 146 | 95 | 495 | 509 | 533 | 592 |
| 28 | 153 | 117 | 100 | 210 | 127 | 161 | 153 | 83 | 507 | 515 | 515 | 589 |
| 29 | 150 | 132 | 95 | 190 | 127 | 159 | 195 | 76 | 484 | 508 | 475 | 607 |
| 30 | 153 | 144 | 90 | 176 | --- | 155 | 198 | 78 | 454 | 373 | 443 | 614 |
| 31 | 153 | --- | 95 | 169 | --- | 159 | --- | 85 | --- | 312 | 445 | --- |
| TOTAL | 7606 | 3756 | 4320 | 4709 | 4037 | 4294 | 5255 | 3457 | 12017 | 16845 | 12195 | 14976 |
| MEAN | 245 | 125 | 139 | 152 | 139 | 139 | 175 | 112 | 401 | 543 | 393 | 499 |
| MAX | 609 | 151 | 169 | 260 | 168 | 198 | 265 | 209 | 636 | 2120 | 556 | 614 |
| MIN | 132 | 103 | 90 | 80 | 123 | 114 | 139 | 76 | 63 | 178 | 145 | 428 |
| AC-FT | 15090 | 7450 | 8570 | 9340 | 8010 | 8520 | 10420 | 6860 | 23840 | 33410 | 24190 | 29700 |

CAL YR 1983 TOTAL 82350 MEAN 226 MAX 950 MIN 14 AC-FT 163300
WTR YR 1984 TOTAL 93467 MEAN 255 MAX 2120 MIN 63 AC-FT 185400

### 07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued
(National stream-quality accounting network station)

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-68, 1970-73, 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1963 to September 1968, January 1976 to September 1981.
WATER TEMPERATURES: November 1963 to September 1965, January 1976 to September 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) | OXYGEN, DISSOLVED (MG/L) | BAROMETRIC PRESSURE (MM OF HG) | COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) | STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | |
| 12... | 13:15 | 169 | 4080 | 8.2 | 7.0 | 11.0 | 663 | -- | 380 |
| FEB | | | | | | | | | |
| 02... | 14:20 | 160 | 4200 | 8.2 | 6.5 | 12.2 | 675 | 19 | K2600 |
| MAY | | | | | | | | | |
| 03... | 14:15 | 150 | 4000 | 8.1 | 16.5 | 9.2 | 668 | 60 | 720 |
| AUG | | | | | | | | | |
| 24... | 10:30 | 543 | 2290 | 8.2 | 22.0 | -- | -- | 5600 | -- |

| DATE | TURBIDITY (NTU) | HARDNESS (MG/L AS CACO3) | HARDNESS NONCARBONATE (MG/L AS CACO3) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY LAB (MG/L AS CACO3) | CARBON DIOXIDE DISSOLVED (MG/L AS CO2) | SULFATE DISSOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 12... | 37 | 1700 | 1710 | 370 | 190 | 500 | 5 | -- | 255 | 3.1 | 2200 |
| FEB | | | | | | | | | | | |
| 02... | 72 | 1800 | 1760 | 390 | 190 | 560 | 6 | 9.7 | 285 | 3.5 | 2300 |
| MAY | | | | | | | | | | | |
| 03... | 110 | 1400 | 1410 | 280 | 170 | 560 | 7 | 10 | 268 | 4.1 | 2200 |

| DATE | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) | PHOSPHORUS, TOTAL (MG/L AS P) | PHOSPHORUS, DISSOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | |
| 12... | 170 | 1.1 | 19 | 4070 | 5.5 | 1860 | 2.60 | 0.9 | 0.06 | 0.01 |
| FEB | | | | | | | | | | |
| 02... | 160 | 1.1 | 20 | 4080 | 5.5 | 1760 | 2.60 | 1.0 | 0.11 | <0.01 |
| MAY | | | | | | | | | | |
| 03... | 170 | 1.0 | 16 | 3940 | 5.4 | 1600 | 2.40 | 2.0 | 0.21 | 0.02 |

K Results based on colony count outside the acceptable range (non-ideal colony count).

## 07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued
(National stream-quality accounting network station)

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | ALUMINUM, DISSOLVED (UG/L AS AL) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, DISSOLVED (UG/L AS BA) | BERYLLIUM, DISSOLVED (UG/L AS BE) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM, DISSOLVED (UG/L AS CR) | COBALT, DISSOLVED (UG/L AS CO) | COPPER, DISSOLVED (UG/L AS CU) | IRON, DISSOLVED (UG/L AS FE) | LEAD, DISSOLVED (UG/L AS PB) |
|---|---|---|---|---|---|---|---|---|---|---|
| DEC<br>12... | 50 | <1 | 200 | -- | -- | <1 | -- | -- | -- | -- |
| FEB<br>02... | 30 | <1 | <100 | <10 | <1 | <1 | <1 | 2 | 220 | <1 |
| MAY<br>03... | 20 | 1 | 200 | <10 | <1 | 1 | <1 | 4 | 50 | 1 |

| DATE | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY DISSOLVED (UG/L AS HG) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | STRONTIUM, DISSOLVED (UG/L AS SR) | VANADIUM, DISSOLVED (UG/L AS V) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| DEC<br>12... | 170 | -- | 0.6 | 7 | -- | 6 | -- | -- | 4 | -- |
| FEB<br>02... | 180 | 30 | <0.1 | 7 | 3 | 34 | <1 | 6400 | 5 | 20 |
| MAY<br>03... | 150 | 30 | 0.1 | 7 | 3 | 21 | <1 | 7500 | 1 | 20 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|
| DEC<br>12... | 13:15 | 169 | 224 | 102 | 83 |
| FEB<br>02... | 14:20 | 160 | 236 | 102 | 81 |
| MAY<br>03... | 14:15 | 150 | 1880 | 761 | 17 |
| JUL<br>16... | 18:25 | 3660 | 3890 | 38400 | 44 |
| AUG<br>24... | 10:30 | 540 | 383 | 558 | 63 |

### PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM |
|---|---|---|---|---|---|---|---|
| DEC<br>12... | -- | -- | -- | 85 | 95 | 100 | -- |
| FEB<br>02... | -- | -- | -- | 88 | 98 | 100 | -- |
| MAY<br>03... | -- | -- | -- | 17 | 17 | 39 | 94 |
| JUL<br>16... | 28 | 36 | 43 | 44 | 46 | 57 | 91 |
| AUG<br>24... | -- | -- | -- | 74 | 82 | 93 | 100 |

## 07138000 ARKANSAS RIVER AT SYRACUSE, KS

LOCATION.--Lat 37 deg 57 min 58 sec, long 101 deg 45 min 23 sec, in NW1/4 SE1/4 NW1/4 sec.18, T.24 S., R.40 W., Hamilton County, Hydrologic Unit 11030001, at left end of bridge on U.S. Highway 270, 0.5 mi south of Syracuse, and at mile 1,080.9.

DRAINAGE AREA.--25,763 sq mi, of which 1,857 sq mi is probably noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1902 to September 1906 (published as "near Syracuse"), October 1920 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 3,209.32 ft National Geodetic Vertical Datum of 1929. See WSP 1921 for history of changes prior to Nov. 15, 1956.

REMARKS.--Records good except those for winter periods, which are poor. Flow moderately regulated since 1943 by John Martin Reservoir (see sta 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--68 years, 308 cu ft per sec, 223,100 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 174,000 cu ft per sec June 17, 1965, gage height, 19.75 ft from rating curve extended above 62,000 cu ft per sec on basis of indirect measurements; maximum gage height, 21.80 ft June 17, 1965; no flow Aug. 17, 1946, and part of each day Sept. 26, 27, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1908 reached a stage of about 11.7 ft from information by local newspaper, discharge, about 87,000 cu ft per sec.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,660 cu ft per sec July 17, gage height, 9.26 ft; minimum daily discharge, 45 cu ft per sec Jan. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 139 | 137 | 130 | 70 | 164 | 129 | 147 | 194 | 101 | 454 | 313 | 383 |
| 2 | 129 | 131 | 147 | 95 | 155 | 131 | 174 | 202 | 102 | 453 | 272 | 408 |
| 3 | 119 | 123 | 155 | 100 | 144 | 131 | 180 | 181 | 89 | 450 | 244 | 437 |
| 4 | 115 | 115 | 177 | 120 | 135 | 130 | 181 | 150 | 82 | 435 | 230 | 454 |
| 5 | 122 | 108 | 184 | 150 | 134 | 126 | 181 | 136 | 75 | 416 | 212 | 455 |
| 6 | 120 | 117 | 162 | 180 | 137 | 127 | 181 | 130 | 71 | 411 | 196 | 441 |
| 7 | 123 | 112 | 171 | 200 | 132 | 126 | 173 | 134 | 70 | 333 | 183 | 415 |
| 8 | 149 | 108 | 165 | 190 | 135 | 124 | 160 | 137 | 95 | 258 | 178 | 399 |
| 9 | 331 | 105 | 160 | 145 | 135 | 124 | 160 | 131 | 262 | 221 | 158 | 403 |
| 10 | 443 | 104 | 157 | 156 | 121 | 122 | 185 | 124 | 377 | 205 | 142 | 416 |
| 11 | 505 | 104 | 157 | 145 | 118 | 121 | 246 | 117 | 441 | 199 | 152 | 421 |
| 12 | 517 | 104 | 159 | 126 | 120 | 123 | 204 | 114 | 478 | 244 | 219 | 433 |
| 13 | 505 | 98 | 159 | 107 | 132 | 120 | 193 | 111 | 495 | 394 | 283 | 442 |
| 14 | 496 | 98 | 157 | 100 | 145 | 113 | 180 | 123 | 481 | 489 | 354 | 432 |
| 15 | 402 | 96 | 154 | 90 | 148 | 117 | 178 | 146 | 445 | 552 | 398 | 452 |
| 16 | 302 | 96 | 147 | 80 | 142 | 113 | 175 | 124 | 480 | 685 | 414 | 471 |
| 17 | 260 | 93 | 144 | 70 | 141 | 111 | 173 | 110 | 534 | 2110 | 439 | 483 |
| 18 | 235 | 93 | 130 | 64 | 141 | 108 | 166 | 110 | 575 | 1460 | 467 | 477 |
| 19 | 209 | 96 | 120 | 55 | 137 | 111 | 160 | 111 | 600 | 725 | 470 | 453 |
| 20 | 188 | 100 | 111 | 45 | 132 | 123 | 158 | 126 | 575 | 510 | 475 | 449 |
| 21 | 186 | 107 | 106 | 55 | 133 | 128 | 159 | 135 | 511 | 444 | 478 | 460 |
| 22 | 171 | 111 | 105 | 53 | 138 | 132 | 168 | 133 | 496 | 500 | 475 | 470 |
| 23 | 159 | 112 | 100 | 72 | 138 | 136 | 195 | 111 | 491 | 579 | 433 | 473 |
| 24 | 160 | 111 | 105 | 84 | 138 | 139 | 194 | 102 | 486 | 599 | 445 | 479 |
| 25 | 157 | 112 | 110 | 100 | 139 | 142 | 175 | 100 | 489 | 595 | 444 | 484 |
| 26 | 168 | 120 | 100 | 106 | 136 | 161 | 157 | 104 | 496 | 594 | 451 | 511 |
| 27 | 144 | 135 | 94 | 110 | 133 | 168 | 149 | 109 | 499 | 568 | 459 | 542 |
| 28 | 145 | 125 | 70 | 111 | 130 | 156 | 143 | 106 | 508 | 557 | 454 | 562 |
| 29 | 142 | 110 | 60 | 115 | 128 | 148 | 174 | 92 | 504 | 569 | 422 | 565 |
| 30 | 132 | 120 | 51 | 120 | --- | 144 | 192 | 87 | 479 | 457 | 384 | 577 |
| 31 | 134 | --- | 60 | 170 | --- | 148 | --- | 91 | --- | 381 | 371 | --- |
| TOTAL | 7107 | 3301 | 4000 | 3384 | 3961 | 4032 | 5261 | 3881 | 11387 | 16877 | 10615 | 13847 |
| MEAN | 229 | 110 | 129 | 109 | 137 | 130 | 175 | 125 | 380 | 544 | 342 | 462 |
| MAX | 517 | 137 | 184 | 200 | 164 | 168 | 246 | 202 | 600 | 2110 | 478 | 577 |
| MIN | 115 | 93 | 51 | 45 | 118 | 108 | 143 | 87 | 70 | 199 | 142 | 383 |
| AC-FT | 14100 | 6550 | 7930 | 6710 | 7860 | 8000 | 10440 | 7700 | 22590 | 33480 | 21050 | 27470 |

CAL YR 1983 TOTAL 76103 MEAN 209 MAX 551 MIN 42 AC-FT 151000
WTR YR 1984 TOTAL 87653 MEAN 239 MAX 2110 MIN 45 AC-FT 173900

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## 07138000 ARKANSAS RIVER AT SYRACUSE, KS--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT | | | | | |
| 19... | 11:10 | 212 | 3300 | 8.1 | 14.0 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| OCT | | | | |
| 19... | 11:10 | 212 | E227 | -- |
| FEB | | | | |
| 13... | 13:30 | 149 | 203 | 82 |
| MAY | | | | |
| 15... | 09:35 | 143 | 930 | 359 |
| JUN | | | | |
| 19... | 10:15 | 585 | 255 | 403 |
| JUL | | | | |
| 17... | 14:55 | 2600 | 955 | 6700 |
| SEP | | | | |
| 04... | 11:30 | 454 | 283 | 347 |

### PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM |
|---|---|---|---|---|---|---|---|
| MAY | | | | | | | |
| 15... | 55 | 72 | 92 | 98 | -- | -- | -- |
| JUL | | | | | | | |
| 17... | 49 | 61 | 68 | 74 | 77 | 86 | 100 |

### PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | SEDI-MENT, SUS-PENDED (MG/L) | BED MAT. FALL DIAM. % FINER THAN .125 MM | BED MAT. FALL DIAM. % FINER THAN .250 MM | BED MAT. FALL DIAM. % FINER THAN .500 MM | BED MAT. FALL DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM |
|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | |
| 15... | 09:35 | 930 | 0 | 3 | 41 | 91 | 97 | 100 |

E Estimated value.

BEST COPY AVAILABLE

## 07138650 WHITE WOMAN CREEK NEAR LEOTI, KS

LOCATION.--Lat 38 deg 28 min 52 sec, long 101 deg 29 min 16 sec, in NW1/4 sec.23, T.18 S., R.38 W., Wichita County, Hydrologic Unit 11030002, near center of span at downstream side of bridge on State Highway 96, 7 mi west of Leoti, 0.8 mi upstream from small right-bank tributary, and at mile 42.0.

DRAINAGE AREA.--750 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,319.79 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1976, water-stage recorder at same site at datum 5.00 ft higher.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--18 years, 1.05 cu ft per sec, 761 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,600 cu ft per sec July 10, 1972, gage height, 18.10 ft, present datum, from rating curve extended above 520 cu ft per sec on basis of slope-area measurement of peak flow; no flow most days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 0.19 cu ft per sec Apr. 29, gage height, 6.35 ft, no peak above base of 300 cu ft per sec; no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .02 | .00 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .02 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .01 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .02 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .03 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .05 | .02 | .03 | .00 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .002 | .001 | .001 | .000 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .03 | .02 | .02 | .00 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .10 | .04 | .06 | .00 | .00 | .00 |

CAL YR 1983 TOTAL 4.88 MEAN .013 MAX 4.5 MIN .00 AC-FT 9.7
WTR YR 1984 TOTAL 0.10 MEAN .000 MAX .03 MIN .00 AC-FT .2

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

BEST COPY AVAILABLE

## 07139500 ARKANSAS RIVER AT DODGE CITY, KS

LOCATION.--Lat 37 deg 46 min 41 sec, long 100 deg 01 min 57 sec, in SW1/4 SW1/4 NW1/4 sec.35, T.26 S., R.25 W., Ford County, Hydrologic Unit 11030003, on left bank at downstream side of bridge on Fourteenth Avenue in Dodge City, and at mile 970.9.

DRAINAGE AREA.--30,600 sq mi, of which 5,583 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1902 to September 1906 (published as "near Dodge"), September 1944 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected at same site at different datum 1909-32 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1341: 1903(M), 1904, 1905(M), 1947(M).

GAGE.--Water-stage recorder. Datum of gage is 2,468.71 ft National Geodetic Vertical Datum of 1929. Nov. 28, 1902, to Aug. 10, 1906, nonrecording gage at site 0.7 mi downstream at datum about 4.00 ft higher. Sept. 1 to Nov. 5, 1944, nonrecording gage and Nov. 6, 1944, to Sept 30, 1975, recording gage at site 0.7 mi downstream and datum 1.00 ft lower. Oct. 1, 1975 to March 16, 1981 recording gage at site 0.7 mi downstream at datum 4.00 ft lower.

REMARKS.--Records poor. Flow moderately regulated since 1943 by John Martin Reservoir (see sta 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--44 years, 164 cu ft per sec, 118,800 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 82,000 cu ft per sec June 19, 1965, gage height, 14.68 ft; no flow at times in 1903, 1946, 1954, 1956, 1974-84.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2.5 cu ft per sec Apr. 29, gage height, 2.87 ft, no peak above base of 500 cu ft per sec; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .80 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .80 | .00 | .00 | .00 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .027 | .000 | .000 | .000 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .80 | .00 | .00 | .00 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | 1.6 | .00 | .00 | .00 | .00 | .00 |

| | | | | | |
|---|---|---|---|---|---|
| CAL YR 1983 | TOTAL 19.34 | MEAN .053 | MAX 14 | MIN .00 | AC-FT 38 |
| WTR YR 1984 | TOTAL 0.80 | MEAN .002 | MAX .80 | MIN .00 | AC-FT 1.6 |

## 07139800 MULBERRY CREEK NEAR DODGE CITY, KS

LOCATION.--Lat 37 deg 35 min 53 sec, long 100 deg 00 min 52 sec, in NW1/4 sec.24, T.28 S., R.25 W., Ford County, Hydrologic Unit 11030004, on right bank 75 ft downstream from bridge on U.S. Highway 283, 9 mi south of Dodge City, and 24 mi above mouth.

DRAINAGE AREA.--73.8 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,509.96 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Low flow frequently augmented by irrigation runoff.

AVERAGE DISCHARGE.--16 years, 0.86 cu ft per sec, 623 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,330 cu ft per sec Apr. 30, 1978, gage height, 12.07 ft; no flow most days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 64 cu ft per sec Apr. 29, gage height, 5.17 ft, no peak above base of 100 cu ft per sec; no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .02 | .00 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .10 | .00 | .00 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.6 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .86 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | 11 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | 4.8 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | 15.90 | 1.62 | .86 | .00 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .53 | .052 | .029 | .000 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | 11 | 1.6 | .86 | .00 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | 32 | 3.2 | 1.7 | .00 | .00 | .00 |

| | | | | | |
|---|---|---|---|---|---|
| CAL YR 1983 | TOTAL 15.06 | MEAN .041 | MAX 15 | MIN .00 | AC-FT 30 |
| WTR YR 1984 | TOTAL 18.38 | MEAN .050 | MAX 11 | MIN .00 | AC-FT 36 |

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--water years 1976 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

## 07140000 ARKANSAS RIVER NEAR KINSLEY, KS

LOCATION.--Lat 37 deg 55 min 33 sec, long 99 deg 22 min 31 sec, in SW1/4 SE1/4 sec.26, T.24 S., R.19 W., Edwards County, Hydrologic Unit 11030004, on right bank at upstream side of bridge on U.S. Highway 50, 2.0 mi east of Kinsley, and at mile 920.3.

DRAINAGE AREA.--31,066 sq mi, of which 5,660 sq mi is probably noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,141.64 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 10, 1944, nonrecording gage, and Nov. 10, 1944, to Dec. 31, 1975, water-stage recorder, both at present site and datum 3.00 ft higher.

REMARKS.--Records poor. Flow moderately regulated since 1943 by John Martin Reservoir (see sta 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--40 years, 153 cu ft per sec, 110,800 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,800 cu ft per sec June 21, 1965, gage height, 17.60 ft, present datum; minimum, no flow July 28, Aug. 9, 11, 1977, Sept. 1-4, 6-8, 23-25, 1979, result of sand pit operation 0.5 mile upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36 cu ft per sec May 9, gage height, 4.15 ft; maximum gage height, 4.45 ft Apr. 13, backwater from beaver dam, no peak above base of 500 cu ft per sec; minimum daily discharge, 0.10 cu ft per sec Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .90 | 1.4 | 2.0 | .90 | 5.4 | 4.2 | 14 | 30 | 16 | 10 | .90 | 1.0 |
| 2 | 1.0 | 1.2 | 1.6 | 1.0 | 5.7 | 4.6 | 16 | 33 | 14 | 12 | 1.0 | 1.8 |
| 3 | 1.2 | 1.2 | 2.0 | 1.0 | 5.7 | 5.5 | 16 | 30 | 14 | 12 | 1.0 | 1.6 |
| 4 | .90 | .90 | 1.8 | 1.4 | 5.8 | 5.6 | 17 | 29 | 15 | 14 | 1.0 | 1.2 |
| 5 | .70 | .90 | 1.6 | 1.2 | 6.3 | 5.7 | 17 | 27 | 13 | 14 | 1.1 | 1.0 |
| 6 | .50 | 1.0 | 1.7 | 1.4 | 5.4 | 5.6 | 18 | 29 | 12 | 14 | 1.1 | .42 |
| 7 | .40 | 1.2 | 1.4 | 1.6 | 5.4 | 6.0 | 17 | 30 | 11 | 12 | 1.1 | .60 |
| 8 | .80 | 1.6 | 1.4 | 1.6 | 6.0 | 6.2 | 17 | 33 | 10 | 13 | 2.0 | .30 |
| 9 | .90 | 1.4 | 1.4 | 1.6 | 6.3 | 6.6 | 17 | 34 | 10 | 10 | 1.4 | .40 |
| 10 | 1.0 | 1.4 | 1.4 | 1.6 | 6.3 | 6.5 | 19 | 34 | 10 | 8.4 | 1.4 | .40 |
| 11 | 1.4 | 1.0 | 1.6 | 1.6 | 5.7 | 6.9 | 22 | 31 | 10 | 6.5 | 1.4 | .30 |
| 12 | 1.0 | 1.0 | 1.4 | 1.4 | 4.5 | 7.2 | 22 | 30 | 9.1 | 7.9 | 1.4 | .30 |
| 13 | 1.0 | 1.2 | 1.6 | 1.4 | 4.2 | 7.2 | 22 | 28 | 10 | 7.5 | 1.8 | .10 |
| 14 | 1.0 | 1.2 | 1.6 | 1.4 | 3.6 | 7.4 | 22 | 26 | 10 | 6.9 | 1.6 | .20 |
| 15 | 1.6 | 1.2 | 1.6 | 1.6 | 3.9 | 7.6 | 22 | 26 | 12 | 6.0 | 1.4 | .30 |
| 16 | 1.4 | 1.4 | 1.8 | 1.6 | 3.9 | 8.2 | 22 | 26 | 12 | 4.8 | 1.2 | .30 |
| 17 | 1.2 | 1.2 | 1.6 | 1.6 | 4.5 | 8.9 | 20 | 25 | 13 | 2.8 | 1.4 | .30 |
| 18 | .93 | 1.4 | 1.8 | 1.6 | 4.2 | 8.9 | 18 | 25 | 12 | 2.2 | 1.4 | .50 |
| 19 | 1.6 | 1.6 | 1.6 | 1.8 | 3.3 | 10 | 18 | 26 | 12 | 2.0 | 1.2 | .60 |
| 20 | 1.2 | 1.8 | 1.8 | 1.8 | 4.3 | 10 | 19 | 26 | 11 | 1.6 | 1.0 | .40 |
| 21 | 1.4 | 1.8 | 1.8 | 2.0 | 2.8 | 10 | 22 | 25 | 11 | 1.6 | 1.0 | .30 |
| 22 | 1.2 | 1.8 | 1.6 | 2.2 | 3.0 | 10 | 22 | 23 | 10 | 1.6 | 1.2 | .20 |
| 23 | 1.4 | 1.8 | 1.6 | 2.2 | 3.5 | 11 | 21 | 22 | 9.3 | 2.0 | 1.6 | .30 |
| 24 | 1.2 | 1.6 | 1.8 | 2.3 | 3.4 | 12 | 21 | 22 | 8.9 | 2.0 | 1.6 | .50 |
| 25 | 1.2 | 2.2 | 1.8 | 2.7 | 3.9 | 12 | 21 | 20 | 8.4 | 2.4 | 2.0 | .30 |
| 26 | 1.2 | 2.0 | 2.0 | 3.3 | 3.5 | 13 | 19 | 20 | 8.7 | 2.4 | 2.0 | .70 |
| 27 | 1.2 | 2.0 | 2.0 | 3.9 | 4.2 | 14 | 17 | 19 | 10 | 2.6 | 2.0 | .90 |
| 28 | 1.2 | 2.0 | 1.8 | 4.5 | 4.3 | 14 | 16 | 18 | 10 | 2.4 | 1.7 | .70 |
| 29 | 1.2 | 2.2 | 1.8 | 4.8 | 4.4 | 13 | 23 | 17 | 11 | 2.0 | 1.4 | .60 |
| 30 | 1.4 | 1.8 | 2.0 | 4.8 | --- | 13 | 25 | 17 | 12 | 1.8 | 1.4 | .60 |
| 31 | 1.2 | --- | 1.6 | 5.1 | --- | 14 | --- | 17 | --- | .70 | 1.2 | --- |
| TOTAL | 34.40 | 44.60 | 52.5 | 66.90 | 133.4 | 274.8 | 582 | 798 | 335.4 | 189.10 | 42.90 | 17.12 |
| MEAN | 1.11 | 1.48 | 1.69 | 2.16 | 4.60 | 8.86 | 19.4 | 25.7 | 11.2 | 6.10 | 1.38 | .57 |
| MAX | 1.6 | 2.2 | 2.0 | 5.1 | 6.3 | 14 | 25 | 34 | 16 | 14 | 2.0 | 1.8 |
| MIN | .40 | .90 | 1.4 | .90 | 2.8 | 4.2 | 14 | 17 | 8.4 | .70 | .90 | .10 |
| AC-FT | 68 | 88 | 104 | 133 | 265 | 545 | 1150 | 1580 | 665 | 375 | 85 | 34 |

CAL YR 1983 TOTAL 2815.20 MEAN 7.71 MAX 130 MIN .40 AC-FT 5580
WTR YR 1984 TOTAL 2570.92 MEAN 7.02 MAX 34 MIN .10 AC-FT 5100

## 07140000 ARKANSAS RIVER NEAR KINSLEY, KS--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1960 to September 1969, November 1974 to September 1975.
SUSPENDED-SEDIMENT DISCHARGE: October 1960 to September 1975.

REMARKS.--Sediment samples are collected only at selected flow conditions.

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| MAY | | | | |
| 11... | 12:30 | 31 | 31 | 2.6 |
| JUN | | | | |
| 21... | 13:55 | 11 | 74 | 2.2 |

### PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | SEDI-MENT, SUS-PENDED (MG/L) | BED MAT. FALL DIAM. % FINER THAN .062 MM | BED MAT. FALL DIAM. % FINER THAN .125 MM | BED MAT. FALL DIAM. % FINER THAN .250 MM | BED MAT. FALL DIAM. % FINER THAN .500 MM | BED MAT. FALL DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM |
|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | |
| 11... | 12:30 | 31 | 1 | 3 | 11 | 29 | 56 | 72 | 91 | 100 |

## 07141200 PAWNEE RIVER NEAR LARNED, KS

LOCATION.--Lat 38 deg 12 min 00 sec, long 99 deg 20 min 50 sec, in NW1/4 NW1/4 sec.30, T.21 S., R.18 W., Pawnee County, Hydrologic Unit 11030005, on right bank, 0.8 mi north of U.S. Highway 156, 14 mi west of Larned, and at mile 24.8.

DRAINAGE AREA.--2,148 sq mi, of which 138 sq mi is probably noncontributing.

PERIOD OF RECORD.--April to September 1924 (gage heights and discharge measurements only), October 1924 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1177: 1949. WSP 1241: 1927-28(M), 1935, 1940, 1943. WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Concrete control since June 2, 1959. Datum of gage is 2,040.90 ft National Geodetic Vertical Datum of 1929. See WSP 1921 for history of changes prior to June 2, 1959.

REMARKS.--Records fair. Natural flow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--60 years, 69.5 cu ft per sec, 50,350 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 cu ft per sec July 28, 1958, gage height, 28.22 ft, site and datum then in use, or 22.9 ft, present site and datum; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 579 cu ft per sec Oct. 13, gage height, 4.06 ft; no peak above base of 900 cu ft per sec; many days of no flow.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | 51 | .00 | 4.4 | 37 | .80 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | 27 | .00 | 4.8 | 106 | 58 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | 19 | .00 | 4.9 | 106 | 24 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | 13 | .00 | 4.4 | 57 | 8.7 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | 7.5 | .00 | 5.1 | 32 | 2.9 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | 4.2 | .00 | 4.8 | 20 | 1.1 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | 3.0 | .00 | 5.0 | 13 | .32 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | 2.6 | .00 | 7.8 | 8.1 | .01 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | 2.3 | .00 | 7.1 | 6.6 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | 2.1 | .00 | 6.6 | 5.7 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | 1.6 | .00 | 7.1 | 5.1 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | 1.5 | .00 | 5.8 | 4.1 | .00 | .00 | .00 | .00 |
| 13 | 346 | .00 | .00 | .00 | 1.1 | .00 | 4.3 | 3.8 | .00 | .00 | .00 | .00 |
| 14 | 114 | .00 | .00 | .00 | .91 | .00 | 3.5 | 3.6 | .00 | .00 | .00 | .00 |
| 15 | 33 | .00 | .00 | .25 | .82 | .00 | 3.2 | 3.2 | .00 | .00 | .00 | .00 |
| 16 | 16 | .00 | .00 | .62 | .62 | .00 | 3.1 | 2.7 | .00 | .00 | .00 | .00 |
| 17 | 7.2 | .00 | .00 | .50 | .43 | .00 | 3.3 | 2.4 | .00 | .00 | .00 | .00 |
| 18 | 3.2 | .00 | .00 | .25 | .37 | .01 | 3.4 | 1.8 | .00 | .00 | .00 | .00 |
| 19 | 2.1 | .00 | .00 | .25 | .12 | .37 | 3.4 | 2.0 | .00 | .00 | .00 | .00 |
| 20 | 1.2 | .00 | .00 | .25 | .00 | .81 | 3.3 | 3.4 | .00 | .00 | .00 | .00 |
| 21 | .96 | .00 | .00 | .25 | .00 | 1.1 | 3.8 | 3.0 | .00 | .00 | .00 | .00 |
| 22 | .50 | .00 | .00 | .26 | .00 | 1.1 | 3.9 | 3.2 | .00 | .00 | .00 | .00 |
| 23 | .20 | .00 | .00 | .27 | .00 | 2.1 | 3.3 | 4.2 | .00 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .29 | .00 | 2.9 | 5.4 | 4.9 | .00 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .31 | .00 | 3.3 | 6.0 | 5.1 | .00 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .43 | .00 | 3.6 | 5.3 | 3.9 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .72 | .00 | 4.0 | 4.4 | 3.0 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | 1.4 | .00 | 4.9 | 4.2 | 2.3 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | 4.9 | .00 | 3.6 | 53 | 1.5 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | 7.5 | --- | 2.8 | 147 | .93 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | 54 | --- | 2.7 | --- | .56 | --- | .00 | .00 | --- |
| TOTAL | 524.36 | .00 | .00 | 72.45 | 139.17 | 33.29 | 331.6 | 456.09 | 95.83 | .00 | .00 | .00 |
| MEAN | 16.9 | .000 | .000 | 2.34 | 4.80 | 1.07 | 11.1 | 14.7 | 3.19 | .000 | .000 | .000 |
| MAX | 346 | .00 | .00 | 54 | 51 | 4.9 | 147 | 106 | 58 | .00 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | 3.1 | .56 | .00 | .00 | .00 | .00 |
| AC-FT | 1040 | .00 | .00 | 144 | 276 | 66 | 658 | 905 | 190 | .00 | .00 | .00 |

CAL YR 1983 TOTAL 4556.32 MEAN 12.5 MAX 1100 MIN .00 AC-FT 9040
WTR YR 1984 TOTAL 1652.79 MEAN 4.52 MAX 346 MIN .00 AC-FT 3280

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

## 07141300 ARKANSAS RIVER AT GREAT BEND, KS

LOCATION.--Lat 38 deg 21 min 11 sec, long 98 deg 45 min 50 sec, in SW1/4 NW1/4 SE1/4 sec.33, T.19 S., R.13 W., Barton County, Hydrologic Unit 11030004, at downstream side of bridge on U.S. Highway 281, 0.5 mi south of Great Bend, 4.5 mi upstream from Walnut Creek, and at mile 873.2.

DRAINAGE AREA.--34,356 sq mi, of which 6,002 sq mi is probably noncontributing.

PERIOD OF RECORD.--September 1940 to current year. Fragmentary gage-height records collected at same site, at datum 3.0 ft higher, 1906, 1908-12, are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,835.19 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1975 at datum 4.00 ft higher.

REMARKS.--Records good except those for winter periods, which are poor. Flow moderately regulated since 1943 by John Martin Reservoir (see sta 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas. Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--44 years, 309 cu ft per sec, 223,900 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,800 cu ft per sec June 23, 1965, gage height, 17.10 ft, present datum; maximum gage height, 17.70 ft June 15, 1981; no flow at times in 1940, 1946, 1956, 1980-81, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 127 cu ft per sec May 2, gage height, 4.68 ft, no peak above base of 1,300 cu ft per sec; no flow Sept. 25-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .56 | 1.4 | 1.5 | 2.3 | 5.3 | 2.1 | 12 | 42 | 11 | 7.7 | .56 | .53 |
| 2 | 1.3 | 1.1 | 1.4 | 2.4 | 4.1 | 2.6 | 13 | 121 | 11 | 7.3 | 4.6 | 1.1 |
| 3 | .86 | 1.1 | 1.3 | 2.2 | 1.1 | 2.8 | 12 | 85 | 11 | 6.5 | 4.1 | 3.8 |
| 4 | .90 | .54 | 1.9 | 2.4 | .94 | 3.8 | 10 | 54 | 10 | 6.3 | 3.0 | 2.4 |
| 5 | .99 | 3.0 | 1.9 | 2.5 | .96 | 13 | 9.9 | 47 | 9.5 | 5.0 | 2.4 | .61 |
| 6 | .41 | 3.3 | 1.3 | 2.5 | .89 | 6.5 | 10 | 58 | 9.1 | 5.3 | 2.2 | .30 |
| 7 | .30 | 1.9 | 1.7 | 3.0 | .94 | 5.5 | 11 | 23 | 9.1 | 5.6 | 1.1 | .02 |
| 8 | 1.4 | .99 | 1.4 | 2.6 | 1.2 | 5.2 | 12 | 18 | 9.0 | 5.7 | 1.9 | .01 |
| 9 | 2.6 | .83 | 1.7 | 2.5 | 1.2 | 5.3 | 10 | 52 | 9.9 | 4.7 | 2.3 | .17 |
| 10 | 1.9 | .82 | 1.7 | 2.3 | 1.1 | 5.8 | 11 | 57 | 9.6 | 3.7 | 2.2 | .40 |
| 11 | 2.6 | .85 | 1.7 | 2.3 | 1.6 | 7.7 | 11 | 51 | 9.8 | 4.0 | 3.1 | .46 |
| 12 | 2.3 | .92 | 1.8 | 2.2 | 2.3 | 7.9 | 10 | 18 | 9.6 | 3.4 | 1.7 | .31 |
| 13 | 2.2 | .83 | 1.7 | 2.0 | 2.1 | 8.0 | 10 | 14 | 10 | 2.3 | .72 | .08 |
| 14 | 2.8 | .87 | 1.1 | 1.9 | 1.3 | 8.0 | 13 | 13 | 10 | 3.1 | 2.5 | .02 |
| 15 | 4.4 | .82 | 1.2 | 1.8 | 1.5 | 7.9 | 12 | 13 | 9.9 | 3.5 | 2.3 | .01 |
| 16 | 2.7 | .82 | 1.2 | 1.9 | 1.6 | 8.1 | 10 | 13 | 9.6 | 3.5 | .71 | .01 |
| 17 | .99 | .75 | 1.5 | 1.9 | 2.3 | 8.9 | 10 | 12 | 9.4 | 2.6 | .35 | .01 |
| 18 | .45 | .63 | 1.5 | 1.9 | 3.8 | 10 | 8.5 | 12 | 9.1 | 2.5 | .55 | .01 |
| 19 | .59 | .84 | 1.4 | 1.8 | 4.3 | 10 | 7.9 | 11 | 9.2 | 2.2 | .38 | .02 |
| 20 | 1.6 | .83 | 1.4 | 1.8 | 4.3 | 9.3 | 9.1 | 11 | 8.9 | 2.0 | .53 | .05 |
| 21 | 1.5 | .70 | 1.5 | 1.9 | 3.6 | 10 | 11 | 10 | 9.0 | 2.3 | .91 | .03 |
| 22 | 2.8 | 1.1 | 1.6 | 2.0 | 2.7 | 8.6 | 10 | 11 | 8.8 | 2.0 | .85 | .01 |
| 23 | 2.9 | 1.5 | 1.7 | 2.0 | 2.6 | 9.2 | 9.0 | 11 | 8.5 | 1.3 | 1.3 | .71 |
| 24 | 3.2 | 1.6 | 1.9 | 2.1 | 2.3 | 10 | 8.8 | 11 | 8.5 | 1.6 | 1.2 | .38 |
| 25 | 1.4 | 2.3 | 1.9 | 2.2 | 2.6 | 11 | 8.9 | 11 | 8.3 | 1.6 | 2.7 | .00 |
| 26 | 1.1 | 2.2 | 1.9 | 2.3 | 3.1 | 10 | 9.8 | 12 | 7.6 | 3.1 | 2.8 | .00 |
| 27 | .77 | 2.6 | 1.8 | 2.3 | 3.1 | 11 | 8.7 | 12 | 7.3 | 4.3 | 2.5 | .00 |
| 28 | .63 | 2.4 | 1.9 | 2.4 | 2.2 | 9.8 | 11 | 12 | 7.5 | 2.7 | .74 | .00 |
| 29 | 3.3 | 2.0 | 1.9 | 2.3 | 1.9 | 8.7 | 21 | 12 | 7.7 | 2.2 | .69 | .00 |
| 30 | 3.2 | 2.0 | 2.0 | 15 | --- | 8.1 | 14 | 12 | 7.8 | 1.1 | .47 | .00 |
| 31 | 1.5 | --- | 2.1 | 5.9 | --- | 11 | --- | 12 | --- | .42 | .60 | --- |
| TOTAL | 54.14 | 41.54 | 50.6 | 84.6 | 66.93 | 245.8 | 324.6 | 851 | 275.7 | 109.52 | 51.96 | 11.45 |
| MEAN | 1.75 | 1.38 | 1.63 | 2.73 | 2.31 | 7.93 | 10.8 | 27.5 | 9.19 | 3.53 | 1.68 | .38 |
| MAX | 4.4 | 3.3 | 2.1 | 15 | 5.3 | 13 | 21 | 121 | 11 | 7.7 | 4.6 | 3.8 |
| MIN | .30 | .54 | 1.1 | 1.8 | .89 | 2.1 | 7.9 | 10 | 7.3 | .42 | .35 | .00 |
| AC-FT | 107 | 82 | 100 | 168 | 133 | 488 | 644 | 1690 | 547 | 217 | 103 | 23 |

CAL YR 1983 TOTAL 7405.37 MEAN 20.3 MAX 1030 MIN .30 AC-FT 14690
WTR YR 1984 TOTAL 2167.84 MEAN 5.92 MAX 121 MIN .00 AC-FT 4300

## 07141780 WALNUT CREEK NEAR RUSH CENTER, KS

LOCATION.--Lat 38 deg 28 min 07 sec, long 99 deg 22 min 07 sec, in NE1/4 SW1/4 SE1/4 sec.24, T.18 S., R.19 W., Rush County, Hydrologic Unit 11030008, on left bank at downstream side of bridge on State Highway 96, 3.0 mi west of Rush Center.

DRAINAGE AREA.--1,256 sq mi, of which 104 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,983.99 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Natural flow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--15 years, 18.3 cu ft per sec, 13,260 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,020 cu ft per sec June 14, 1970, gage height, 24.89 ft; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 177 cu ft per sec July 6, gage height, 9.36 ft, no peak above base of 1,000 cu ft per sec; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | 3.4 | .00 | .00 | 8.7 | .00 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | 11 | .00 | .00 | 8.3 | 4.0 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | 3.7 | .00 | .00 | 6.8 | 37 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | 1.4 | .00 | .00 | 3.8 | 7.0 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .38 | .00 | .00 | 2.5 | 1.9 | .31 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.3 | 9.4 | 62 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .58 | 15 | 30 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.8 | 5.1 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.0 | .18 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.4 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.7 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.6 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.5 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 64 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 23 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.1 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .57 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .09 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | 4.6 | .00 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | 19 | .00 | .00 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | 11 | .00 | .00 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | 3.7 | .00 | .00 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | 1.5 | .00 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .48 | .00 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .30 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | 25 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | 19.88 | .00 | 65.58 | 31.98 | 196.06 | 97.59 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .69 | .000 | 2.19 | 1.03 | 6.54 | 3.15 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | 11 | .00 | 25 | 8.7 | 64 | 62 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | 39 | .00 | 130 | 63 | 389 | 194 | .00 | .00 |

CAL YR 1983 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00
WTR YR 1984 TOTAL 411.09 MEAN 1.12 MAX 64 MIN .00 AC-FT 815

## 07141900 WALNUT CREEK AT ALBERT, KS

LOCATION.--Lat 38 deg 27 min 40 sec, long 99 deg 00 min 50 sec, in SW1/4 NW1/4 NW1/4 sec.29, T.18 S., R.15 W., Barton County, Hydrologic Unit 11030008, at downstream side of highway bridge, 0.2 mi north of Albert, 14 mi northwest of Great Bend, and at mile 43.0.

DRAINAGE AREA.--1,410 sq mi, approximately, of which 104 sq mi is probably noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,897.37 ft National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records good. Flow of stream affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--26 years, 48.9 cu ft per sec, 35,430 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 cu ft per sec Sept. 22, 1959, gage height, 25.75 ft; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1927 reached a stage of 21.3 ft, from floodmark and information by local residents (discharge not determined, but due to levees built in 1934 is substantially greater than indicated by current rating).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 440 cu ft per sec Apr. 30, gage height, 10.67 ft, no peak above base of 1,000 cu ft per sec; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | 19 | .00 | .00 | 147 | .06 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | 8.8 | .00 | .00 | 40 | .40 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | 4.6 | .00 | 2.6 | 24 | .32 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | 2.4 | .00 | 11 | 16 | .16 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .80 | .00 | 8.0 | 12 | .08 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .32 | .00 | 5.4 | 7.9 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .04 | .00 | 3.0 | 6.8 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | 1.4 | 6.0 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .80 | 5.8 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .92 | 5.4 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .64 | 5.3 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .48 | 5.2 | .05 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .15 | 4.7 | .80 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .72 | 4.4 | 15 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .64 | 3.8 | 17 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .45 | 3.5 | 28 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .16 | 18 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 10 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.4 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 4.1 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .67 | .00 | 2.2 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | 110 | .00 | 1.0 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | 41 | .00 | .56 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | 16 | .00 | .24 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | 10 | .00 | .02 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | 7.1 | .40 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | 4.6 | .32 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | 2.3 | .16 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | 2.2 | .00 | .00 | 8.4 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | 2.5 | --- | .00 | 342 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | 25 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | 29.70 | 35.96 | .00 | 578.27 | 298.84 | 104.39 | .00 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .96 | 1.24 | .000 | 19.3 | 9.64 | 3.48 | .000 | .000 | .000 |
| MAX | .00 | .00 | .00 | 25 | 19 | .00 | 342 | 147 | 28 | .00 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | 59 | 71 | .00 | 1150 | 593 | 207 | .00 | .00 | .00 |

CAL YR 1983 TOTAL 31.05 MEAN .085 MAX 22 MIN .00 AC-FT 62
WTR YR 1984 TOTAL 1047.16 MEAN 2.86 MAX 342 MIN .00 AC-FT 2080

## 07141900 WALNUT CREEK AT ALBERT, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1963 to September 1969, October 1970 to September 1975.
SUSPENDED-SEDIMENT DISCHARGE: October 1963 to September 1975.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) |
|---|---|---|---|---|
| MAY | | | | |
| 02... | 09:55 | 43 | 460 | 53 |

## 07142300 RATTLESNAKE CREEK NEAR MACKSVILLE, KS

LOCATION.--Lat 37 deg 52 min 20 sec, long 98 deg 52 min 30 sec, in SW1/4 SW1/4 sec.16, T.25 S., R.14 W., Stafford County, Hydrologic Unit 11030009, at downstream side of highway bridge, 8 mi southeast of Macksville, and 87.5 mi upstream from mouth.

DRAINAGE AREA.--784 sq mi, of which about 428 sq mi is probably noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,963.46 ft, from Stafford County bench mark. Prior to July 14, 1960, nonrecording gage and crest-stage gages at same site and datum.

REMARKS.--Records fair except those for winter periods and those for period of no gage-height record, May 15 to June 28, which are poor.

AVERAGE DISCHARGE.--25 years, 31.3 cu ft per sec, 22,680 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,700 cu ft per sec Sept. 26, 1973, gage height, 11.02 ft; no flow Sept. 5, 9, 10, 12, 13, 25-29, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42 cu ft per sec, May 3, gage height, 3.77 ft, no peak above base of 100 cu ft per sec; minimum, 0.10 cu ft per sec Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.1 | 4.0 | 4.3 | 5.6 | 5.9 | 6.0 | 12 | 17 | 13 | 4.4 | .40 | .20 |
| 2 | 1.1 | 4.4 | 4.4 | 5.8 | 5.9 | 5.9 | 14 | 21 | 12 | 4.0 | .42 | .27 |
| 3 | 1.0 | 4.2 | 5.0 | 4.5 | 5.9 | 5.9 | 15 | 37 | 12 | 3.9 | .45 | .23 |
| 4 | 1.0 | 4.0 | 4.8 | 4.7 | 5.6 | 6.0 | 15 | 26 | 11 | 3.6 | .50 | .23 |
| 5 | 1.1 | 3.9 | 4.6 | 5.4 | 5.7 | 6.3 | 14 | 25 | 11 | 2.9 | .39 | .24 |
| 6 | 1.2 | 4.6 | 4.2 | 6.0 | 5.6 | 5.5 | 13 | 24 | 11 | 2.4 | .41 | .18 |
| 7 | 1.3 | 4.7 | 4.9 | 5.7 | 5.7 | 5.5 | 13 | 22 | 11 | 1.9 | .39 | .14 |
| 8 | 1.3 | 4.7 | 5.0 | 5.6 | 5.9 | 5.3 | 13 | 19 | 12 | 1.5 | .44 | .16 |
| 9 | 1.3 | 4.8 | 5.5 | 5.9 | 6.0 | 5.3 | 13 | 27 | 11 | 1.6 | .42 | .21 |
| 10 | 1.5 | 4.7 | 5.6 | 5.6 | 6.2 | 5.5 | 15 | 32 | 11 | 1.3 | .44 | .22 |
| 11 | 3.7 | 4.7 | 5.7 | 6.3 | 6.1 | 5.6 | 15 | 23 | 11 | 1.2 | .49 | .19 |
| 12 | 2.9 | 4.7 | 5.9 | 4.8 | 5.9 | 5.5 | 15 | 19 | 12 | 1.2 | .56 | .13 |
| 13 | 2.3 | 4.5 | 5.6 | 4.5 | 5.9 | 5.6 | 14 | 17 | 12 | 1.2 | .44 | .16 |
| 14 | 1.9 | 4.4 | 5.2 | 4.2 | 5.9 | 5.6 | 14 | 16 | 12 | 1.1 | .39 | .19 |
| 15 | 1.6 | 4.4 | 4.7 | 4.4 | 6.3 | 5.3 | 14 | 15 | 13 | .97 | .38 | .21 |
| 16 | 1.6 | 4.3 | 5.4 | 5.1 | 6.0 | 6.9 | 13 | 14 | 12 | .80 | .36 | .21 |
| 17 | 1.7 | 4.2 | 5.0 | 4.9 | 5.9 | 10 | 13 | 14 | 12 | .74 | .33 | .23 |
| 18 | 2.3 | 4.2 | 4.5 | 4.8 | 6.3 | 10 | 13 | 13 | 13 | .72 | .31 | .26 |
| 19 | 2.9 | 4.4 | 4.0 | 4.9 | 5.9 | 12 | 12 | 13 | 13 | .72 | .32 | .34 |
| 20 | 3.0 | 4.2 | 3.5 | 4.5 | 5.9 | 10 | 15 | 12 | 12 | .57 | .36 | .35 |
| 21 | 4.1 | 4.2 | 3.0 | 4.4 | 5.9 | 10 | 19 | 12 | 12 | .56 | .30 | .30 |
| 22 | 4.1 | 4.2 | 3.0 | 4.5 | 5.9 | 9.5 | 18 | 13 | 11 | .53 | .28 | .30 |
| 23 | 3.7 | 4.1 | 3.0 | 4.8 | 5.7 | 10 | 18 | 14 | 11 | .47 | .26 | .28 |
| 24 | 3.5 | 4.2 | 3.0 | 5.0 | 5.6 | 12 | 16 | 15 | 11 | .42 | .27 | .22 |
| 25 | 3.3 | 4.2 | 3.5 | 5.4 | 5.8 | 14 | 15 | 13 | 10 | .44 | .26 | .20 |
| 26 | 3.1 | 4.2 | 4.0 | 6.5 | 7.1 | 15 | 14 | 14 | 9.6 | .51 | .21 | .24 |
| 27 | 3.0 | 4.6 | 4.3 | 6.3 | 6.1 | 14 | 14 | 15 | 9.0 | .51 | .25 | .25 |
| 28 | 2.7 | 4.1 | 4.0 | 5.9 | 6.2 | 13 | 13 | 14 | 8.0 | .45 | .31 | .25 |
| 29 | 2.5 | 4.6 | 4.0 | 6.0 | 5.9 | 12 | 19 | 14 | 5.5 | .45 | .26 | .27 |
| 30 | 2.8 | 4.2 | 4.5 | 6.2 | --- | 12 | 18 | 13 | 5.1 | .44 | .25 | .34 |
| 31 | 2.9 | --- | 5.0 | 5.9 | --- | 12 | --- | 13 | --- | .43 | .25 | --- |
| TOTAL | 71.6 | 130.6 | 139.1 | 164.1 | 172.7 | 267.6 | 439 | 556 | 329.2 | 41.93 | 11.09 | 7.00 |
| MEAN | 2.30 | 4.35 | 4.49 | 5.29 | 5.96 | 8.63 | 14.6 | 17.9 | 11.0 | 1.35 | .36 | .23 |
| MAX | 4.1 | 4.8 | 5.9 | 6.5 | 7.1 | 15 | 19 | 37 | 13 | 4.4 | .56 | .35 |
| MIN | 1.0 | 3.9 | 3.0 | 4.2 | 5.6 | 5.3 | 12 | 12 | 5.1 | .42 | .21 | .13 |
| AC-FT | 142 | 259 | 276 | 325 | 343 | 531 | 871 | 1100 | 653 | 83 | 22 | 14 |

CAL YR 1983 TOTAL 4503.73 MEAN 12.3 MAX 368 MIN .54 AC-FT 8930
WTR YR 1984 TOTAL 2329.71 MEAN 6.37 MAX 37 MIN .13 AC-FT 4620

## 07142300 RATTLESNAKE CREEK NEAR MACKSVILLE, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| FEB | | | | |
| 23... | 10:00 | 5.6 | 14 | 0.21 |
| APR | | | | |
| 12... | 16:45 | 14 | 54 | 2.0 |
| MAY | | | | |
| 10... | 08:30 | 33 | 322 | 29 |
| JUN | | | | |
| 28... | 09:30 | 7.6 | 70 | 1.4 |
| SEP | | | | |
| 26... | 12:20 | 0.27 | 52 | 0.04 |

## 07142575 RATTLESNAKE CREEK NEAR ZENITH, KS

LOCATION.--Lat 38 deg 06 min 01 sec, long 98 deg 30 min 32 sec, in SW1/4 SW1/4 SW1/4 sec.26, T.22 S., R.11 W., Stafford County, Hydrologic Unit 11030009, at downstream side of highway bridge, 1.1 mi upstream from Little Salt Marsh, 10.0 mi north of Zenith, and at mile 19.3.

DRAINAGE AREA.--1,052 sq mi, of which 519 sq mi is noncontributing.

PERIOD OF RECORD.--May 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,785 ft, from topographic map.

REMARKS.--Records poor. Natural flow of stream affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--11 years, 59.4 cu ft per sec, 43,040 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,200 cu ft per sec Sept. 26, 1973, gage height, 9.95 ft; minimum discharge, no flow Sept. 14-15, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 232 cu ft per sec Apr. 30, gage height, 5.32 ft, no peak above base of 400 cu ft per sec; no flow Sept. 14-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .65 | 8.6 | 9.8 | 8.4 | 25 | 19 | 80 | 140 | 23 | 16 | 1.9 | .54 |
| 2 | .20 | 7.7 | 10 | 9.0 | 26 | 19 | 120 | 115 | 22 | 15 | 1.9 | 3.7 |
| 3 | .31 | 7.3 | 9.8 | 10 | 23 | 18 | 109 | 85 | 21 | 16 | 1.9 | 3.0 |
| 4 | .19 | 8.6 | 9.6 | 11 | 24 | 17 | 96 | 65 | 20 | 13 | 2.2 | 1.5 |
| 5 | .61 | 8.7 | 10 | 12 | 24 | 16 | 69 | 60 | 22 | 12 | 2.3 | 1.1 |
| 6 | .75 | 9.4 | 11 | 13 | 36 | 16 | 64 | 66 | 25 | 12 | 2.0 | .60 |
| 7 | .97 | 10 | 11 | 14 | 23 | 17 | 60 | 65 | 27 | 11 | 1.5 | .35 |
| 8 | 1.5 | 11 | 11 | 15 | 21 | 19 | 62 | 62 | 24 | 10 | 1.6 | .38 |
| 9 | 1.8 | 9.6 | 11 | 16 | 21 | 16 | 56 | 56 | 21 | 8.9 | 1.9 | .45 |
| 10 | 1.6 | 8.9 | 11 | 16 | 21 | 13 | 68 | 53 | 19 | 7.0 | 2.1 | .50 |
| 11 | 7.5 | 9.0 | 11 | 16 | 21 | 13 | 62 | 49 | 15 | 6.9 | 2.1 | .15 |
| 12 | 4.3 | 8.6 | 11 | 15 | 21 | 13 | 58 | 49 | 19 | 6.4 | 1.9 | .06 |
| 13 | 4.6 | 7.9 | 11 | 14 | 20 | 13 | 55 | 50 | 23 | 6.1 | 1.4 | .02 |
| 14 | 3.1 | 8.0 | 11 | 13 | 19 | 19 | 49 | 45 | 22 | 5.2 | .88 | .00 |
| 15 | 1.9 | 7.9 | 10 | 14 | 19 | 25 | 45 | 40 | 23 | 4.2 | .97 | .00 |
| 16 | 1.9 | 7.8 | 9.0 | 14 | 21 | 35 | 43 | 38 | 22 | 5.5 | .96 | .00 |
| 17 | 1.7 | 7.6 | 8.0 | 14 | 20 | 45 | 41 | 35 | 21 | 5.7 | .62 | .00 |
| 18 | 1.8 | 8.8 | 7.0 | 13 | 21 | 54 | 39 | 34 | 19 | 4.5 | .39 | .00 |
| 19 | 2.3 | 8.6 | 5.6 | 13 | 20 | 64 | 38 | 33 | 21 | 3.7 | .39 | .01 |
| 20 | 2.2 | 8.9 | 5.0 | 13 | 20 | 80 | 43 | 31 | 22 | 3.0 | 1.9 | .20 |
| 21 | 3.5 | 10 | 5.0 | 14 | 20 | 110 | 39 | 30 | 21 | 2.5 | 3.0 | .70 |
| 22 | 3.8 | 10 | 5.4 | 15 | 19 | 140 | 122 | 31 | 20 | 2.4 | 2.9 | .45 |
| 23 | 4.0 | 9.8 | 5.6 | 17 | 19 | 170 | 105 | 31 | 16 | 2.3 | 2.2 | .32 |
| 24 | 3.5 | 9.0 | 5.4 | 19 | 18 | 190 | 80 | 30 | 17 | 2.3 | 1.6 | .25 |
| 25 | 3.2 | 11 | 6.2 | 22 | 18 | 200 | 64 | 29 | 16 | 2.2 | 1.9 | .20 |
| 26 | 4.5 | 10 | 6.8 | 25 | 18 | 170 | 55 | 29 | 15 | 2.4 | 1.4 | .16 |
| 27 | 5.3 | 10 | 7.0 | 28 | 18 | 122 | 47 | 28 | 15 | 2.6 | .81 | .80 |
| 28 | 5.6 | 9.6 | 7.0 | 33 | 18 | 87 | 43 | 28 | 15 | 2.5 | .56 | 3.0 |
| 29 | 6.8 | 9.6 | 6.4 | 35 | 18 | 67 | 105 | 26 | 15 | 2.3 | .46 | 3.5 |
| 30 | 7.4 | 9.6 | 7.0 | 38 | --- | 60 | 210 | 26 | 15 | 2.0 | .65 | 3.7 |
| 31 | 7.4 | --- | 7.8 | 27 | --- | 54 | --- | 24 | --- | 1.8 | .50 | --- |
| TOTAL | 94.28 | 271.1 | 262.4 | 535.4 | 612 | 1901 | 2175 | 1485 | 599 | 193.4 | 46.79 | 25.64 |
| MEAN | 3.04 | 9.04 | 8.46 | 17.3 | 21.1 | 61.3 | 72.5 | 47.9 | 20.0 | 6.24 | 1.51 | .85 |
| MAX | 7.5 | 11 | 11 | 38 | 36 | 200 | 210 | 140 | 27 | 16 | 3.0 | 3.7 |
| MIN | .19 | 7.3 | 5.0 | 8.4 | 18 | 13 | 39 | 24 | 15 | 1.8 | .39 | .00 |
| AC-FT | 187 | 538 | 520 | 1060 | 1210 | 3770 | 4310 | 2950 | 1190 | 384 | 93 | 51 |

CAL YR 1983 TOTAL 10526.82 MEAN 28.8 MAX 369 MIN .16 AC-FT 20880
WTR YR 1984 TOTAL 8202.01 MEAN 22.4 MAX 210 MIN .00 AC-FT 16270

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## 07142520 RATTLESNAKE CREEK NEAR RAYMOND, KS

LOCATION.--Lat 38 deg 13 min 50 sec, long 98 deg 25 min 00 sec, in SW1/4 NW1/4 NW1/4 sec.15, T.21 S., R.10 W., Rice County, Hydrologic Unit 11030009, at downstream side of highway bridge, 3.5 mi south of Raymond, and 5.6 mi upstream from mouth.

DRAINAGE AREA.--1,167 sq mi, of which 569 sq mi is probably noncontributing.

PERIOD OF RECORD.--April 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,701.64 ft National Geodetic Vertical Datum of 1929. Prior to July 27, 1960, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for winter period and period of no gage-height record, July 7 to Aug. 14, which are poor. Flow regulated at times by Quivera National Wildlife Refuge.

AVERAGE DISCHARGE.--24 years, 54.1 cu ft per sec, 39,200 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,140 cu ft per sec Sept. 29, 1973, gage height, 8.74 ft; no flow at times in 1964, 1968-69, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1973 was the maximum known since at least 1891, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 217 cu ft per sec Mar. 26, gage height, 5.66 ft; no flow for part of day Sept. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.9 | 3.1 | 3.1 | 3.2 | 14 | 22 | 138 | 198 | 23 | 5.5 | 2.3 | .76 |
| 2 | 1.9 | 3.1 | 3.0 | 4.0 | 18 | 19 | 156 | 189 | 17 | 5.6 | 2.2 | 2.1 |
| 3 | 1.8 | 3.1 | 2.5 | 4.5 | 19 | 17 | 166 | 173 | 15 | 5.4 | 2.2 | 2.5 |
| 4 | 1.8 | 3.1 | 2.4 | 4.9 | 21 | 22 | 155 | 170 | 16 | 5.4 | 2.3 | 2.2 |
| 5 | 1.8 | 3.1 | 2.6 | 5.4 | 21 | 20 | 146 | 159 | 17 | 5.3 | 2.4 | 2.1 |
| 6 | 1.8 | 3.5 | 2.5 | 5.6 | 37 | 21 | 137 | 149 | 20 | 5.2 | 2.6 | 1.6 |
| 7 | 1.9 | 3.8 | 2.5 | 5.6 | 24 | 22 | 129 | 144 | 16 | 5.0 | 2.3 | .53 |
| 8 | 1.9 | 3.8 | 2.6 | 6.6 | 24 | 21 | 123 | 133 | 16 | 4.7 | 2.0 | .94 |
| 9 | 2.1 | 4.0 | 2.7 | 6.0 | 24 | 20 | 113 | 125 | 12 | 4.6 | 2.2 | 1.5 |
| 10 | 2.3 | 4.2 | 2.7 | 5.0 | 24 | 14 | 118 | 119 | 10 | 4.5 | 2.3 | 1.9 |
| 11 | 3.7 | 4.2 | 2.7 | 4.4 | 25 | 13 | 118 | 108 | 9.2 | 4.3 | 2.3 | 1.6 |
| 12 | 3.1 | 4.2 | 2.6 | 4.4 | 26 | 13 | 116 | 89 | 9.2 | 4.2 | 2.3 | .97 |
| 13 | 2.9 | 4.1 | 2.5 | 4.0 | 25 | 13 | 107 | 75 | 11 | 4.0 | 2.1 | .69 |
| 14 | 2.9 | 4.0 | 2.3 | 3.3 | 25 | 14 | 95 | 69 | 11 | 3.7 | 1.7 | 1.3 |
| 15 | 2.8 | 4.0 | 2.0 | 3.4 | 25 | 15 | 88 | 68 | 10 | 3.6 | 1.3 | 3.3 |
| 16 | 2.8 | 4.0 | 1.8 | 3.5 | 26 | 19 | 85 | 66 | 10 | 3.4 | 1.2 | 3.7 |
| 17 | 2.8 | 4.0 | 1.6 | 3.2 | 25 | 27 | 80 | 57 | 11 | 4.0 | 1.1 | 4.0 |
| 18 | 2.8 | 4.0 | 1.4 | 2.5 | 25 | 39 | 65 | 49 | 9.7 | 4.5 | 1.0 | 4.2 |
| 19 | 2.9 | 4.0 | 1.3 | 2.6 | 26 | 49 | 59 | 45 | 9.5 | 4.3 | .90 | 4.2 |
| 20 | 2.9 | 4.0 | 1.2 | 3.4 | 25 | 56 | 60 | 42 | 9.2 | 4.3 | 1.0 | 3.8 |
| 21 | 4.7 | 4.0 | 1.3 | 4.0 | 26 | 90 | 85 | 39 | 10 | 3.9 | 1.2 | 3.8 |
| 22 | 3.9 | 4.2 | 1.4 | 4.0 | 26 | 112 | 90 | 36 | 9.6 | 3.6 | 1.8 | 4.1 |
| 23 | 3.4 | 4.3 | 1.5 | 3.8 | 25 | 118 | 96 | 32 | 9.7 | 3.3 | 1.7 | 4.3 |
| 24 | 3.4 | 4.4 | 1.5 | 3.5 | 23 | 145 | 98 | 34 | 7.3 | 3.1 | 1.7 | 3.5 |
| 25 | 3.4 | 4.4 | 1.6 | 4.0 | 23 | 196 | 93 | 36 | 6.1 | 2.8 | 1.8 | .54 |
| 26 | 3.3 | 4.5 | 1.9 | 5.0 | 22 | 208 | 99 | 25 | 6.2 | 2.6 | 1.8 | .68 |
| 27 | 3.3 | 4.9 | 2.1 | 8.0 | 19 | 194 | 89 | 26 | 6.2 | 2.8 | 1.7 | .73 |
| 28 | 3.2 | 4.0 | 2.0 | 13 | 17 | 173 | 75 | 24 | 6.1 | 3.0 | 1.5 | .74 |
| 29 | 2.9 | 3.5 | 1.9 | 18 | 20 | 160 | 120 | 21 | 6.0 | 2.8 | 1.4 | .80 |
| 30 | 2.9 | 3.0 | 2.2 | 17 | --- | 154 | 179 | 23 | 5.9 | 2.6 | 1.2 | .84 |
| 31 | 2.9 | --- | 2.7 | 16 | --- | 145 | --- | 24 | --- | 2.5 | 1.2 | --- |
| TOTAL | 86.1 | 116.5 | 66.1 | 151.8 | 680 | 2151 | 3296 | 2553 | 329.9 | 125.0 | 54.70 | 63.42 |
| MEAN | 2.78 | 3.88 | 2.13 | 5.86 | 23.4 | 69.4 | 110 | 82.4 | 11.0 | 4.03 | 1.76 | 2.13 |
| MAX | 4.7 | 4.9 | 3.1 | 18 | 37 | 208 | 179 | 198 | 23 | 5.6 | 2.6 | 4.3 |
| MIN | 1.8 | 3.0 | 1.2 | 2.5 | 14 | 13 | 59 | 21 | 5.9 | 2.5 | .90 | .53 |
| AC-FT | 171 | 231 | 131 | 301 | 1350 | 4270 | 6520 | 5060 | 654 | 248 | 109 | 127 |

CAL YR 1983 TOTAL 13855.30 MEAN 38.0 MAX 260 MIN 1.2 AC-FT 27540
WTR YR 1984 TOTAL 9694.02 MEAN 26.5 MAX 208 MIN .53 AC-FT 19230

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## 07142860 COW CREEK NEAR CLAFLIN, KS

LOCATION.--Lat 38 deg 31 min 20 sec, long 98 deg 35 min 00 sec, in NE1/4 NW1/4 sec.6, T.18 S., R.11 W., Barton County, Hydrologic Unit 11030011, at downstream side of bridge on State Highway 4, 2.5 mi west of Claflin, and at mile 97.8.

DRAINAGE AREA.--43 sq mi.

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) |
|---|---|---|---|---|
| MAR | | | | |
| 30... | 11:05 | 1.0 | 118 | 0.32 |
| MAY | | | | |
| 02... | 15:25 | 8.6 | 548 | 13 |

## 07143300 COW CREEK NEAR LYONS, KS

LOCATION.--38 deg 18 min 30 sec, long 98 deg 11 min 30 sec, in SW1/4 SE1/4 sec.15, T.20 S., R.8 W., Rice County, Hydrologic Unit 11030011, at left bank near downstream side of Missouri Pacific Railroad bridge, 500 ft downstream from Little Cow Creek, 3.0 mi south of Lyons, and 33 mi upstream from mouth.

DRAINAGE AREA.--728 sq mi, includes 229 sq mi in Cheyenne Bottoms, closed basin.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to September 1951. Occasional low-flow measurements, water years 1956-60. Annual maximum, water years 1960-61. October 1961 to current year. Prior to April 1938, monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 877: 1938(M). WSP 1117: Drainage area. WSP 1177: 1950(M).

GAGE.--Water-stage recorder. Datum of gage is 1,628.16 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to July 3, 1938, nonrecording gage at present site and datum. July 3, 1938, to Sept. 30, 1951, water-stage recorder at site 60 ft upstream at same datum. October 1959 to Mar. 12, 1962, crest-stage gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by releases from Cheyenne Bottoms, which in turn is affected by diversions from Arkansas River and Walnut Creek, and by periodic discharges from salt plant immediately upstream. Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--37 years, 77.9 cu ft per sec, 56,440 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,100 cu ft per sec Sept. 26, 1973, gage height, 20.38 ft, from rating curve extended above 7,200 cu ft per sec; no flow at times during 1938, 1946.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1928, 22.75 ft July 11, 1929, from information by Missouri Pacific Railroad Co.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,320 cu ft per sec May 1, gage height, 16.34 ft, no other peak above base of 1,200 cu ft per sec; minimum discharge, 0.76 cu ft per sec Sept. 12-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.1 | 3.4 | 4.2 | 4.4 | 15 | 5.4 | 21 | 1270 | 17 | 16 | 3.2 | 1.3 |
| 2 | 1.1 | 15 | 4.4 | 4.5 | 12 | 5.4 | 50 | 662 | 16 | 12 | 3.2 | 1.2 |
| 3 | 1.1 | 59 | 4.4 | 7.0 | 9.4 | 5.8 | 426 | 146 | 16 | 9.9 | 3.1 | 1.2 |
| 4 | 1.0 | 16 | 4.6 | 9.5 | 8.0 | 7.2 | 684 | 85 | 20 | 9.0 | 2.9 | 1.2 |
| 5 | .95 | 7.0 | 4.5 | 11 | 7.5 | 7.2 | 411 | 69 | 17 | 7.9 | 2.8 | 1.2 |
| 6 | .90 | 6.1 | 4.4 | 13 | 7.1 | 6.2 | 196 | 57 | 17 | 7.3 | 2.8 | 1.2 |
| 7 | .91 | 4.3 | 4.6 | 16 | 6.2 | 5.4 | 86 | 50 | 16 | 6.9 | 3.2 | 1.1 |
| 8 | .90 | 9.6 | 4.7 | 26 | 6.2 | 5.1 | 53 | 44 | 15 | 6.4 | 4.4 | .97 |
| 9 | .94 | 11 | 4.6 | 28 | 6.3 | 5.0 | 42 | 38 | 16 | 5.7 | 3.2 | .91 |
| 10 | 1.1 | 7.6 | 4.7 | 22 | 6.3 | 5.2 | 40 | 37 | 14 | 6.1 | 2.7 | .93 |
| 11 | 1.4 | 11 | 4.6 | 15 | 6.2 | 4.9 | 39 | 37 | 15 | 5.7 | 2.4 | .93 |
| 12 | 1.1 | 13 | 4.7 | 12 | 6.1 | 5.2 | 41 | 33 | 14 | 5.5 | 2.2 | .83 |
| 13 | 1.6 | 8.2 | 4.7 | 9.9 | 5.8 | 5.2 | 39 | 30 | 15 | 5.4 | 2.1 | .85 |
| 14 | 2.0 | 5.8 | 4.6 | 8.0 | 5.7 | 5.3 | 37 | 28 | 14 | 5.0 | 2.0 | .84 |
| 15 | 1.9 | 4.7 | 4.7 | 7.0 | 5.5 | 5.4 | 35 | 26 | 13 | 4.8 | 2.0 | .82 |
| 16 | 1.5 | 4.2 | 4.8 | 6.0 | 5.4 | 9.7 | 32 | 25 | 12 | 5.0 | 2.0 | .78 |
| 17 | 1.3 | 4.1 | 4.6 | 5.0 | 5.3 | 20 | 28 | 24 | 12 | 5.1 | 2.0 | .82 |
| 18 | 1.3 | 4.1 | 4.2 | 4.3 | 5.4 | 54 | 25 | 23 | 12 | 4.7 | 2.0 | .91 |
| 19 | 1.6 | 3.8 | 4.0 | 4.0 | 5.4 | 280 | 23 | 22 | 21 | 4.7 | 1.9 | .92 |
| 20 | 2.0 | 3.5 | 3.6 | 3.9 | 5.6 | 225 | 26 | 22 | 20 | 4.6 | 1.7 | .97 |
| 21 | 3.2 | 3.6 | 3.4 | 3.9 | 5.7 | 222 | 47 | 21 | 14 | 4.5 | 1.7 | 1.0 |
| 22 | 3.0 | 3.7 | 3.2 | 4.0 | 5.8 | 247 | 208 | 21 | 12 | 4.1 | 1.8 | .97 |
| 23 | 3.3 | 3.8 | 3.1 | 4.3 | 5.7 | 166 | 212 | 21 | 11 | 3.9 | 1.8 | .97 |
| 24 | 3.2 | 3.9 | 3.0 | 4.7 | 5.9 | 178 | 115 | 20 | 9.4 | 3.8 | 1.8 | .94 |
| 25 | 2.6 | 3.9 | 3.1 | 5.3 | 5.5 | 349 | 71 | 19 | 8.6 | 3.6 | 1.8 | .95 |
| 26 | 2.0 | 4.1 | 3.1 | 6.6 | 5.5 | 485 | 51 | 18 | 15 | 3.4 | 1.7 | 1.0 |
| 27 | 1.7 | 5.3 | 3.1 | 7.5 | 5.5 | 258 | 39 | 18 | 13 | 3.4 | 1.7 | 1.1 |
| 28 | 1.5 | 4.1 | 3.2 | 8.4 | 5.4 | 89 | 32 | 17 | 202 | 3.3 | 1.8 | 1.2 |
| 29 | 1.6 | 4.2 | 3.4 | 10 | 5.4 | 46 | 131 | 17 | 73 | 3.4 | 1.7 | 1.3 |
| 30 | 1.8 | 4.2 | 3.9 | 12 | --- | 31 | 975 | 18 | 24 | 3.3 | 1.5 | 1.3 |
| 31 | 1.6 | --- | 4.2 | 18 | --- | 24 | --- | 17 | --- | 3.2 | 1.4 | --- |
| TOTAL | 51.40 | 242.2 | 126.3 | 301.2 | 190.8 | 2766.6 | 4215 | 2935 | 694.0 | 177.6 | 70.5 | 30.61 |
| MEAN | 1.66 | 8.07 | 4.07 | 9.72 | 6.58 | 89.2 | 141 | 94.7 | 23.1 | 5.73 | 2.27 | 1.02 |
| MAX | 3.3 | 59 | 4.8 | 28 | 15 | 485 | 975 | 1270 | 202 | 16 | 4.4 | 1.3 |
| MIN | .90 | 3.4 | 3.0 | 3.9 | 5.3 | 4.9 | 21 | 17 | 8.6 | 3.2 | 1.4 | .78 |
| AC-FT | 102 | 480 | 251 | 597 | 378 | 5490 | 8360 | 5820 | 1380 | 352 | 140 | 61 |

CAL YR 1983 TOTAL 5454.40 MEAN 14.9 MAX 342 MIN .90 AC-FT 10820
WTR YR 1984 TOTAL 11801.21 MEAN 32.2 MAX 1270 MIN .78 AC-FT 23410

## 07143300 COW CREEK NEAR LYONS, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| OCT | | | | |
| 17... | 10:50 | 1.4 | 76 | 0.28 |
| FEB | | | | |
| 24... | 09:05 | 5.5 | 26 | 0.39 |
| APR | | | | |
| 12... | 10:25 | 41 | 176 | 19 |
| MAY | | | | |
| 11... | 08:35 | 38 | 64 | 6.6 |
| SEP | | | | |
| 25... | 14:45 | 1.0 | 35 | 0.09 |

## 07143330 ARKANSAS RIVER NEAR HUTCHINSON, KS

LOCATION.--Lat 37 deg 56 min 47 sec, long 97 deg 46 min 29 sec, in SW1/4 NW1/4 SW1/4 sec.21, T.24 S., R.4 W., Reno County, Hydrologic Unit 11030010, on right bank at downstream side of highway bridge, 3.0 mi north of Haven, 4.5 mi downstream from Cow Creek, 11 mi southeast of Hutchinson, and at mile 800.3.

DRAINAGE AREA.--38,910 sq mi, of which 7,186 sq mi is probably noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WDR KS-74-1: 1973(M).

GAGE.--Water-stage recorder. Datum of gage is 1,454.10 ft National Geodetic Vertical Datum of 1929. Prior to June 22, 1960, nonrecording gage at present site and datum.

REMARKS.--Records good except those during winter months, which are poor. Flow slightly regulated since 1943 by John Martin Reservoir (see sta 07130000). Extensive diversions for irrigation. Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--25 years, 566 cu ft per sec, 410,100 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,700 cu ft per sec Sept. 28, 1973, gage height, 12.95 ft; minimum, 27 cu ft per sec Oct 13, 14, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 22 | 0200 | 1,880 | 5.77 | Apr. 29 | 2400 | 1,820 | 5.72 |
| Mar. 24 | 0400 | *2,860 | 6.50 | | | | |

Minimum discharge, 42 cu ft per sec Sept. 23, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 62 | 93 | 96 | 100 | 126 | 115 | 496 | 1320 | 262 | 225 | 86 | 57 |
| 2 | 62 | 90 | 96 | 105 | 141 | 113 | 505 | 1320 | 258 | 170 | 84 | 57 |
| 3 | 60 | 88 | 102 | 110 | 138 | 117 | 907 | 1500 | 258 | 162 | 82 | 56 |
| 4 | 62 | 86 | 97 | 115 | 134 | 130 | 1190 | 1660 | 270 | 151 | 81 | 56 |
| 5 | 60 | 94 | 96 | 120 | 125 | 126 | 1210 | 987 | 261 | 142 | 80 | 56 |
| 6 | 62 | 120 | 95 | 126 | 116 | 123 | 1230 | 730 | 248 | 138 | 79 | 56 |
| 7 | 66 | 124 | 90 | 132 | 119 | 119 | 1110 | 672 | 242 | 132 | 78 | 55 |
| 8 | 68 | 103 | 94 | 134 | 119 | 117 | 1210 | 635 | 232 | 124 | 77 | 56 |
| 9 | 68 | 105 | 95 | 133 | 123 | 118 | 774 | 582 | 276 | 117 | 76 | 56 |
| 10 | 66 | 105 | 95 | 124 | 125 | 115 | 668 | 537 | 264 | 121 | 75 | 55 |
| 11 | 99 | 93 | 95 | 122 | 122 | 111 | 806 | 511 | 236 | 123 | 74 | 58 |
| 12 | 108 | 93 | 94 | 124 | 118 | 125 | 704 | 513 | 224 | 117 | 73 | 52 |
| 13 | 91 | 95 | 96 | 120 | 116 | 124 | 601 | 504 | 233 | 116 | 72 | 53 |
| 14 | 86 | 96 | 96 | 115 | 115 | 119 | 510 | 467 | 363 | 114 | 71 | 70 |
| 15 | 83 | 99 | 97 | 110 | 113 | 117 | 459 | 440 | 402 | 110 | 70 | 61 |
| 16 | 80 | 96 | 92 | 105 | 120 | 123 | 433 | 414 | 259 | 112 | 69 | 55 |
| 17 | 77 | 94 | 85 | 100 | 118 | 197 | 413 | 405 | 230 | 156 | 68 | 55 |
| 18 | 78 | 90 | 80 | 95 | 122 | 233 | 391 | 385 | 199 | 150 | 67 | 54 |
| 19 | 91 | 89 | 78 | 90 | 117 | 557 | 379 | 369 | 193 | 133 | 66 | 54 |
| 20 | 86 | 89 | 78 | 90 | 111 | 550 | 392 | 360 | 193 | 114 | 65 | 54 |
| 21 | 95 | 88 | 80 | 95 | 112 | 982 | 408 | 333 | 192 | 111 | 64 | 54 |
| 22 | 102 | 87 | 82 | 100 | 112 | 1340 | 404 | 329 | 189 | 104 | 63 | 50 |
| 23 | 89 | 89 | 84 | 105 | 117 | 1140 | 445 | 316 | 176 | 101 | 62 | 44 |
| 24 | 86 | 86 | 86 | 110 | 116 | 2420 | 587 | 304 | 178 | 95 | 61 | 43 |
| 25 | 87 | 81 | 88 | 120 | 115 | 1400 | 577 | 298 | 167 | 96 | 60 | 51 |
| 26 | 87 | 87 | 90 | 130 | 121 | 1060 | 509 | 282 | 165 | 96 | 60 | 50 |
| 27 | 86 | 126 | 92 | 138 | 124 | 979 | 973 | 286 | 158 | 93 | 59 | 59 |
| 28 | 86 | 112 | 90 | 128 | 121 | 988 | 437 | 277 | 152 | 91 | 58 | 62 |
| 29 | 86 | 102 | 88 | 130 | 118 | 791 | 697 | 268 | 158 | 90 | 58 | 57 |
| 30 | 85 | 99 | 90 | 124 | --- | 625 | 1390 | 265 | 251 | 89 | 58 | 53 |
| 31 | 83 | --- | 95 | 124 | --- | 557 | --- | 264 | --- | 88 | 57 | --- |
| TOTAL | 2487 | 2899 | 2812 | 3574 | 3496 | 15731 | 20815 | 17533 | 6889 | 3782 | 2153 | 1649 |
| MEAN | 80.2 | 96.6 | 90.7 | 115 | 120 | 507 | 694 | 566 | 230 | 122 | 69.5 | 55.0 |
| MAX | 108 | 126 | 102 | 138 | 141 | 2420 | 1390 | 1660 | 402 | 225 | 86 | 70 |
| MIN | 60 | 81 | 78 | 90 | 111 | 111 | 379 | 264 | 152 | 88 | 57 | 43 |
| AC-FT | 4930 | 5750 | 5580 | 7090 | 6930 | 31200 | 41290 | 34780 | 13660 | 7500 | 4270 | 3270 |

CAL YR 1983 TOTAL 86933 MEAN 238 MAX 1590 MIN 60 AC-FT 172400
WTR YR 1984 TOTAL 83818 MEAN 229 MAX 2420 MIN 43 AC-FT 166300

## 07143330 ARKANSAS RIVER NEAR HUTCHINSON, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1968 to September 1976.
WATER TEMPERATURES: October 1960 to September 1976.
SUSPENDED-SEDIMENT DISCHARGE: October 1960 to June 1970.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| NOV | | | | | |
| 02... | 15:40 | 90 | 2440 | 8.0 | 18.0 |
| DEC | | | | | |
| 14... | 12:10 | 100 | 2650 | 7.9 | 2.0 |
| JAN | | | | | |
| 25... | 12:25 | 118 | 2620 | 8.0 | 0.0 |
| MAR | | | | | |
| 07... | 13:00 | 119 | 3600 | 8.4 | 13.0 |
| APR | | | | | |
| 18... | 17:25 | 396 | 3000 | 8.2 | 18.5 |
| MAY | | | | | |
| 31... | 12:30 | 250 | 2900 | 8.4 | 20.5 |

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) |
|---|---|---|---|---|
| NOV | | | | |
| 02... | 15:40 | 90 | 15 | 3.6 |
| JAN | | | | |
| 25... | 12:25 | 118 | 28 | 8.9 |
| MAR | | | | |
| 07... | 13:00 | 119 | 21 | 6.7 |
| APR | | | | |
| 18... | 17:25 | 396 | 56 | 60 |
| MAY | | | | |
| 31... | 12:30 | 250 | 33 | 22 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | SEDIMENT, SUSPENDED (MG/L) | BED MAT. FALL DIAM. % FINER THAN .125 MM | BED MAT. FALL DIAM. % FINER THAN .250 MM | BED MAT. FALL DIAM. % FINER THAN .500 MM | BED MAT. FALL DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 02... | 15:40 | 15 | 0 | 8 | 45 | 78 | 85 | 98 | 100 |
| APR | | | | | | | | | |
| 18... | 17:25 | 56 | 0 | 7 | 44 | 70 | 85 | 96 | 100 |

BEST COPY AVAILABLE

## 07143665 LITTLE ARKANSAS RIVER AT ALTA MILLS, KS

LOCATION.--Lat 38 deg 06 min 44 sec, long 97 deg 35 min 30 sec, in SW1/4 NW1/4 NW1/4 sec.30, T.22 S., R.2 W., Harvey County, Hydrologic Unit 11030012, at downstream side of county highway bridge, 0.4 mi south of Alta Mills, 0.8 mi downstream from Sand Creek, and at mile 50.1.

DRAINAGE AREA.--736 sq mi, of which 55 sq mi is noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,395 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--11 years, 218 cu ft per sec, 157,900 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,300 cu ft per sec Oct. 12, 1973, gage height, 27.42 ft from rating curve extended above 7,000 cu ft per sec; minimum, 0.58 cu ft per sec Oct. 4, 5, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 21 | 0300 | 4,080 | 19.85 | Apr. 9 | 0100 | 2,690 | 16.37 |
| Mar. 25 | 1800 | 4,160 | 19.99 | Apr. 27 | 1800 | *4,620 | 20.77 |
| Apr. 5 | 1200 | 2,170 | 14.95 | May 1 | 1400 | 3,520 | 18.65 |

Minimum discharge, 0.58 cu ft per sec Oct. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .78 | 4.1 | 21 | 5.5 | 102 | 9.2 | 105 | 3430 | 30 | 42 | 3.3 | 1.6 |
| 2 | .86 | 5.4 | 16 | 6.0 | 76 | 9.2 | 124 | 2810 | 28 | 28 | 3.9 | 1.3 |
| 3 | .78 | 5.4 | 14 | 6.9 | 50 | 9.1 | 504 | 678 | 27 | 21 | 4.4 | 1.6 |
| 4 | .64 | 5.6 | 12 | 8.3 | 45 | 10 | 1720 | 290 | 28 | 17 | 4.3 | 1.5 |
| 5 | .64 | 4.1 | 11 | 11 | 31 | 10 | 2130 | 208 | 26 | 15 | 4.2 | 1.8 |
| 6 | .64 | 5.5 | 9.2 | 15 | 26 | 11 | 1760 | 165 | 31 | 14 | 3.9 | 1.9 |
| 7 | .78 | 9.1 | 8.3 | 25 | 20 | 13 | 667 | 159 | 29 | 12 | 3.5 | 1.5 |
| 8 | .86 | 9.1 | 8.2 | 51 | 18 | 11 | 2130 | 148 | 25 | 12 | 3.6 | 1.3 |
| 9 | .86 | 15 | 7.7 | 71 | 16 | 10 | 2440 | 131 | 54 | 11 | 2.9 | 1.3 |
| 10 | 1.1 | 16 | 7.6 | 70 | 14 | 9.9 | 1130 | 107 | 272 | 10 | 3.4 | 1.4 |
| 11 | 2.7 | 24 | 7.6 | 60 | 13 | 10 | 997 | 91 | 122 | 10 | 3.4 | 1.4 |
| 12 | 2.7 | 47 | 7.2 | 50 | 12 | 10 | 1110 | 82 | 62 | 8.4 | 3.9 | 2.2 |
| 13 | 2.9 | 31 | 7.1 | 40 | 13 | 10 | 787 | 75 | 39 | 7.6 | 3.1 | 1.7 |
| 14 | 10 | 22 | 7.1 | 29 | 12 | 9.7 | 289 | 66 | 33 | 6.9 | 2.6 | 1.4 |
| 15 | 13 | 16 | 6.7 | 21 | 11 | 9.7 | 166 | 59 | 33 | 6.7 | 2.5 | 1.5 |
| 16 | 9.0 | 13 | 6.7 | 16 | 10 | 11 | 121 | 56 | 54 | 6.1 | 2.5 | 1.5 |
| 17 | 4.4 | 12 | 6.2 | 13 | 9.8 | 31 | 99 | 51 | 42 | 7.1 | 2.1 | 2.2 |
| 18 | 3.1 | 8.8 | 5.8 | 11 | 11 | 599 | 85 | 47 | 61 | 7.9 | 1.9 | 2.5 |
| 19 | 3.3 | 6.8 | 5.6 | 11 | 11 | 2910 | 76 | 44 | 274 | 7.1 | 1.9 | 2.4 |
| 20 | 2.9 | 6.4 | 5.6 | 9.7 | 10 | 3150 | 94 | 58 | 114 | 7.0 | 2.1 | 2.2 |
| 21 | 4.2 | 6.1 | 5.4 | 9.0 | 9.8 | 3840 | 123 | 81 | 50 | 6.9 | 2.4 | 2.0 |
| 22 | 3.9 | 5.6 | 5.2 | 8.8 | 9.7 | 3730 | 249 | 65 | 33 | 7.4 | 2.5 | 1.9 |
| 23 | 53 | 5.6 | 5.0 | 8.7 | 9.1 | 3770 | 278 | 47 | 36 | 6.6 | 2.0 | 2.0 |
| 24 | 31 | 5.5 | 5.0 | 9.1 | 8.8 | 3520 | 168 | 42 | 101 | 5.7 | 1.6 | 2.0 |
| 25 | 21 | 5.7 | 5.0 | 9.6 | 8.7 | 3950 | 123 | 38 | 99 | 5.8 | 1.4 | 1.9 |
| 26 | 14 | 6.5 | 5.0 | 11 | 9.0 | 3280 | 221 | 34 | 140 | 5.9 | 1.6 | 1.8 |
| 27 | 7.4 | 10 | 5.0 | 16 | 9.2 | 1310 | 3820 | 35 | 111 | 5.5 | 1.5 | 1.9 |
| 28 | 4.6 | 15 | 5.0 | 33 | 9.0 | 487 | 3010 | 36 | 70 | 5.3 | 1.1 | 2.0 |
| 29 | 3.7 | 39 | 5.0 | 61 | 9.1 | 274 | 953 | 40 | 42 | 5.3 | .92 | 2.1 |
| 30 | 3.0 | 33 | 5.0 | 109 | --- | 190 | 2720 | 38 | 50 | 4.6 | .80 | 1.9 |
| 31 | 3.1 | --- | 5.2 | 126 | --- | 128 | --- | 33 | --- | 3.4 | 1.0 | --- |
| TOTAL | 210.84 | 398.3 | 236.4 | 950.6 | 593.2 | 31321.8 | 28179 | 9244 | 2116 | 319.2 | 80.22 | 53.7 |
| MEAN | 6.80 | 13.3 | 7.63 | 30.7 | 20.5 | 1010 | 939 | 298 | 70.5 | 10.3 | 2.59 | 1.79 |
| MAX | 53 | 47 | 21 | 126 | 102 | 3950 | 3820 | 3430 | 274 | 42 | 4.4 | 2.5 |
| MIN | .64 | 4.1 | 5.0 | 5.5 | 8.7 | 9.1 | 76 | 33 | 25 | 3.4 | .80 | 1.3 |
| AC-FT | 418 | 790 | 469 | 1890 | 1180 | 62130 | 55890 | 18340 | 4200 | 633 | 159 | 107 |

CAL YR 1983 TOTAL 52785.80 MEAN 145 MAX 5370 MIN .64 AC-FT 104700
WTR YR 1984 TOTAL 73703.26 MEAN 201 MAX 3950 MIN .64 AC-FT 146200

## 07143665 LITTLE ARKANSAS RIVER AT ALTA MILLS, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Sediment samples collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV | | | | | |
| 03... | 08:50 | 5.5 | 910 | 7.5 | 16.0 |
| DEC | | | | | |
| 14... | 09:35 | 7.0 | 1130 | 7.5 | 0.0 |
| JAN | | | | | |
| 25... | 09:25 | 9.1 | 1500 | 7.6 | 0.0 |
| MAR | | | | | |
| 07... | 10:00 | 13 | 2310 | 8.1 | 4.5 |
| APR | | | | | |
| 19... | 08:55 | 91 | 1520 | 7.8 | 12.5 |
| MAY | | | | | |
| 31... | 09:40 | 33 | 2000 | 9.1 | 16.0 |

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| NOV | | | | |
| 03... | 08:50 | 5.5 | 156 | 2.3 |
| MAR | | | | |
| 07... | 10:00 | 13 | 44 | 1.5 |
| APR | | | | |
| 19... | 08:55 | 91 | 121 | 30 |
| MAY | | | | |
| 31... | 09:40 | 33 | 72 | 6.4 |
| JUL | | | | |
| 18... | 09:25 | 7.5 | 119 | 2.4 |
| AUG | | | | |
| 25... | 10:30 | 1.4 | 35 | 0.13 |

## 07144200 LITTLE ARKANSAS RIVER AT VALLEY CENTER, KS

LOCATION.--Lat 37 deg 49 min 56 sec, long 97 deg 23 min 16 sec, river gage is in NE1/4 NW1/4 SW1/4 sec.36, T.25 S., R.1 W., Sedgwick County, Hydrologic Unit 11030012, on right bank at downstream side of highway bridge, 0.5 mi west of Valley Center, and 17.5 mi upstream from mouth. Little Arkansas River Floodway gage is in NE1/4 NE1/4 NE1/4 sec.34, T.25 S., R.1 W., on right bank at downstream side of highway bridge, 1.2 mi northwest of river gage.

DRAINAGE AREA.--1,327 sq mi, of which about 77 sq mi is probably noncontributing.

PERIOD OF RECORD.--June 1922 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1037: 1944. WSP 1117: Drainage area. WSP 1241: 1923, 1924-26(M), 1928-29(M), 1930(M, m), 1931(M), 1932(M, m), 1933(M), 1934, 1937(M), 1949(M). WSP 1711: 1958.

GAGE.--River gage is water-stage recorder. Datum of gage is 1,325.66 ft National Geodetic Vertical Datum of 1929. Prior to Feb. 12, 1935, nonrecording gage at site 2.0 mi downstream at different datum. Feb. 12, 1935, to July 1, 1951, water-stage recorder, July 2, 1951, to Feb. 16, 1952, nonrecording gage, and Feb. 17, 1952, to Sept. 30, 1974, water-stage recorder at present site and at datum 2.00 ft higher. Floodway gage is water-stage recorder. Datum of floodway gage is 1,340.00 ft National Geodetic Vertical Datum of 1929 (levels by Wichita-Valley Center Flood Control Project).

REMARKS.--Combined records good except those for winter period, which are poor. Natural flow of stream affected by diversions and ground-water withdrawal for irrigation and municipal supply. Since May 1957, part of high-water flow bypasses river gage through floodway channel for which separate records are computed; figures representing combined discharge are given herein. Discharge through floodway occurred only on the days given in the following table:

| Date | Discharge (cu ft per sec) | Date | Discharge (cu ft per sec) | Date | Discharge (cu ft per sec) | Date | Discharge (cu ft per sec) |
|---|---|---|---|---|---|---|---|
| Mar. 18 | 495 | Mar. 24 | 5,640 | Apr. 9 | 2,450 | Apr. 29 | 749 |
| Mar. 19 | 7,060 | Mar. 25 | 3,950 | Apr. 10 | 589 | Apr. 30 | 553 |
| Mar. 20 | 3,000 | Mar. 26 | 1,840 | Apr. 11 | 35 | May 1 | 1,090 |
| Mar. 21 | 3,220 | Mar. 27 | 1,180 | Apr. 27 | 18 | May 2 | 982 |
| Mar. 22 | 4,330 | Mar. 28 | 5.8 | Apr. 28 | 1,450 | May 3 | 318 |
| Mar. 23 | 2,660 | Apr. 8 | 2,570 | | | | |

AVERAGE DISCHARGE.--62 years, 284 cu ft per sec, 205,800 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,000 cu ft per sec Apr. 16, 1945, gage height, 24.05 ft, present datum, from rating curve extended above 12,000 cu ft per sec on basis of slope-area measurement of peak flow; minimum, 1.0 cu ft per sec Oct. 6, 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 19 | 1200 | *11,230 | --- | Apr. 8 | 2100 | 6,510 | --- |
| Mar. 24 | 1500 | 9,190 | --- | Apr. 28 | 1200 | 3,880 | --- |

Minimum discharge, 4.0 cu ft per sec Aug. 5.

## 07144200 LITTLE ARKANSAS RIVER AT VALLEY CENTER, KS--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14 | 21 | 72 | 18 | 150 | 39 | 386 | 3340 | 93 | 75 | 14 | 6.5 |
| 2 | 14 | 29 | 53 | 20 | 153 | 39 | 369 | 3300 | 86 | 75 | 11 | 6.3 |
| 3 | 14 | 29 | 43 | 23 | 123 | 35 | 770 | 2530 | 81 | 59 | 4.4 | 6.0 |
| 4 | 13 | 23 | 39 | 25 | 100 | 42 | 1450 | 890 | 80 | 51 | 4.1 | 5.5 |
| 5 | 13 | 22 | 39 | 30 | 87 | 43 | 2050 | 533 | 82 | 44 | 4.0 | 6.0 |
| 6 | 12 | 20 | 36 | 38 | 70 | 42 | 2120 | 431 | 79 | 38 | 4.1 | 6.3 |
| 7 | 12 | 19 | 32 | 44 | 56 | 41 | 1650 | 395 | 75 | 33 | 4.4 | 6.3 |
| 8 | 13 | 19 | 29 | 58 | 59 | 40 | 4970 | 354 | 76 | 29 | 8.4 | 6.0 |
| 9 | 13 | 23 | 28 | 109 | 56 | 40 | 4890 | 346 | 71 | 27 | 10 | 5.6 |
| 10 | 14 | 29 | 27 | 140 | 57 | 39 | 2930 | 291 | 105 | 26 | 11 | 6.0 |
| 11 | 21 | 37 | 27 | 140 | 55 | 38 | 2220 | 249 | 289 | 26 | 12 | 6.3 |
| 12 | 30 | 55 | 26 | 120 | 51 | 41 | 2090 | 219 | 165 | 24 | 9.7 | 6.3 |
| 13 | 26 | 70 | 26 | 100 | 45 | 44 | 1780 | 201 | 113 | 21 | 9.2 | 6.0 |
| 14 | 18 | 59 | 27 | 80 | 46 | 44 | 1060 | 136 | 178 | 19 | 6.1 | 6.0 |
| 15 | 16 | 44 | 25 | 70 | 46 | 42 | 569 | 201 | 335 | 19 | 5.1 | 5.6 |
| 16 | 15 | 37 | 22 | 65 | 43 | 52 | 630 | 169 | 159 | 17 | 6.3 | 6.3 |
| 17 | 25 | 32 | 20 | 45 | 40 | 535 | 367 | 156 | 109 | 19 | 6.9 | 20 |
| 18 | 23 | 29 | 17 | 35 | 39 | 1380 | 302 | 144 | 90 | 19 | 9.5 | 20 |
| 19 | 29 | 26 | 15 | 30 | 39 | 9970 | 270 | 135 | 100 | 19 | 12 | 14 |
| 20 | 29 | 25 | 15 | 30 | 39 | 5590 | 296 | 152 | 289 | 18 | 11 | 11 |
| 21 | 26 | 23 | 15 | 30 | 38 | 5920 | 1510 | 156 | 163 | 17 | 11 | 9.4 |
| 22 | 21 | 20 | 15 | 30 | 36 | 7140 | 963 | 158 | 94 | 15 | 9.8 | 8.9 |
| 23 | 21 | 22 | 15 | 35 | 35 | 5310 | 656 | 145 | 76 | 16 | 8.8 | 9.3 |
| 24 | 61 | 20 | 15 | 40 | 34 | 8540 | 513 | 128 | 117 | 16 | 10 | 9.2 |
| 25 | 62 | 20 | 15 | 43 | 35 | 6700 | 377 | 116 | 170 | 11 | 9.7 | 9.9 |
| 26 | 42 | 30 | 15 | 39 | 39 | 4340 | 309 | 106 | 169 | 11 | 6.3 | 7.8 |
| 27 | 33 | 55 | 17 | 41 | 44 | 3620 | 931 | 102 | 184 | 7.7 | 6.3 | 9.0 |
| 28 | 26 | 143 | 17 | 46 | 46 | 1710 | 3710 | 100 | 150 | 8.7 | 6.5 | 9.5 |
| 29 | 21 | 123 | 16 | 50 | 41 | 847 | 2840 | 99 | 107 | 9.1 | 6.5 | 10 |
| 30 | 17 | 82 | 16 | 100 | --- | 556 | 2660 | 101 | 80 | 13 | 6.3 | 10 |
| 31 | 17 | --- | 17 | 130 | --- | 652 | --- | 100 | --- | 13 | 6.5 | --- |
| TOTAL | 711 | 1221 | 791 | 1814 | 1704 | 63306 | 45406 | 15523 | 3949 | 791.5 | 249.9 | 255.0 |
| MEAN | 22.9 | 40.7 | 25.5 | 58.5 | 58.8 | 2042 | 1514 | 501 | 132 | 25.5 | 8.06 | 8.50 |
| MAX | 62 | 143 | 72 | 140 | 153 | 9970 | 4970 | 3340 | 335 | 75 | 14 | 20 |
| MIN | 12 | 19 | 15 | 18 | 34 | 35 | 270 | 99 | 71 | 7.7 | 4.0 | 5.5 |
| AC-FT | 1410 | 2420 | 1570 | 3600 | 3380 | 125600 | 90060 | 30790 | 7830 | 1570 | 496 | 506 |

CAL YR 1983 TOTAL 97619.4 MEAN 267 MAX 6070 MIN 7.7 AC-FT 194000
WTR YR 1984 TOTAL 135721.4 MEAN 371 MAX 9970 MIN 4.0 AC-FT 269200

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## 07144300 ARKANSAS RIVER AT WICHITA, KS

LOCATION.--Lat 37 deg 38 min 41 sec, long 97 deg 20 min 06 sec, river gage is in SE1/4 SE1/4 NE1/4 sec.5, T.28 S., R.1 E., Sedgwick County, Hydrologic Unit 11030013, on right bank on downstream side of bridge on U.S. Highway 81 in Wichita, 3.7 mi downstream from mouth of Little Arkansas River and at mile 759.7. Big Slough-Cowskin Floodway gage is in sec.11, T.27 S., R.1 W., Sedgwick County, on right bank at downstream side of Bickel Avenue Bridge in Wichita, 1.0 mi downstream from control structure and 6.5 mi northwest of U.S. Highway 81 gage.

DRAINAGE AREA.--40,490 sq mi, of which 7,263 sq mi is probably noncontributing.

PERIOD OF RECORD.--July 1934 to current year. Gage-height records collected at site 3.2 mi upstream since 1897 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1241: 1940, 1944. WSP 1341: Drainage area.

GAGE.--River gage is water-stage recorder. Datum of gage is 1,267.42 ft National Geodetic Vertical Datum of 1929. See WSP 1921 for history of changes prior to Oct. 1, 1968. Floodway gage is water-stage recorder. Datum of floodway gage is 1,300.00 ft National Geodetic Vertical Datum of 1929 (levels by Wichita-Valley Center Flood Control Project).

REMARKS.--Records poor. Flow slightly regulated since 1943 by John Martin Reservoir (see sta 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation, City of Wichita weir 2.2 mi upstream, and return flow from irrigated areas. Since May 1957, part of high-water flow bypasses river gage through floodway channel for which separate records are computed; figures representing floodway discharge and combined discharge are given herein. Discharge through floodway occurred only on the days given in the following table:

| Date | Discharge (cu ft per sec) | Date | Discharge (cu ft per sec) | Date | Discharge (cu ft per sec) |
|---|---|---|---|---|---|
| Mar. 19 | 2,390 | Mar. 24 | 2,480 | Apr. 8 | 293 |
| Mar. 20 | 652 | Mar. 25 | 1,210 | Apr. 9 | 273 |
| Mar. 21 | 65 | Mar. 26 | 70 | Apr. 10 | 1.2 |
| Mar. 22 | 655 | Apr. 7 | 0.13 | Apr. 11 | 0.15 |
| Mar. 23 | 242 | | | | |

AVERAGE DISCHARGE.--50 years, 1,050 cu ft per sec, 760,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,400 cu ft per sec Oct. 31, 1979; minimum, 3.0 cu ft per sec Sept. 3, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of May 18, 1877, and July 8, 1904, reached stages of 21 ft and 20.3 ft respectively, river gage site and datum then in use (from reports of U.S. Weather Bureau).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,700 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 19 | 1700 | 13,300 | --- | Apr. 8 | 2100 | 9,210 | --- |
| Mar. 22 | 2100 | 9,750 | --- | Apr. 28 | 1800 | 5,280 | 5.93 |
| Mar. 24 | 1800 | *15,400 | --- | May 1 | 0400 | 6,210 | 6.47 |

Minimum discharge, 29 cu ft per sec Sept. 11-13.

### 07144300 ARKANSAS RIVER AT WICHITA, KS--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 82 | 127 | 195 | 130 | 350 | 173 | 1160 | 5870 | 473 | 343 | 100 | 55 |
| 2 | 80 | 128 | 180 | 130 | 339 | 160 | 1170 | 5710 | 456 | 385 | 98 | 57 |
| 3 | 75 | 125 | 194 | 135 | 295 | 239 | 1380 | 5450 | 436 | 330 | 96 | 57 |
| 4 | 70 | 122 | 166 | 140 | 268 | 260 | 2270 | 3530 | 428 | 298 | 95 | 56 |
| 5 | 70 | 122 | 162 | 142 | 234 | 197 | 3150 | 2560 | 432 | 276 | 95 | 55 |
| 6 | 75 | 116 | 143 | 163 | 193 | 188 | 3590 | 1760 | 433 | 266 | 110 | 54 |
| 7 | 80 | 114 | 143 | 159 | 223 | 167 | 3650 | 1450 | 390 | 252 | 105 | 47 |
| 8 | 85 | 163 | 146 | 236 | 191 | 166 | 6780 | 1310 | 472 | 234 | 105 | 50 |
| 9 | 85 | 210 | 139 | 289 | 233 | 167 | 7730 | 1230 | 437 | 218 | 100 | 55 |
| 10 | 90 | 150 | 146 | 240 | 204 | 166 | 5060 | 1090 | 373 | 207 | 100 | 51 |
| 11 | 250 | 122 | 123 | 217 | 201 | 161 | 3000 | 1010 | 524 | 194 | 95 | 50 |
| 12 | 200 | 119 | 136 | 197 | 159 | 220 | 2800 | 921 | 504 | 195 | 90 | 35 |
| 13 | 180 | 124 | 128 | 178 | 180 | 136 | 2200 | 872 | 467 | 193 | 85 | 48 |
| 14 | 160 | 126 | 125 | 170 | 173 | 195 | 1800 | 832 | 418 | 191 | 82 | 53 |
| 15 | 150 | 141 | 108 | 168 | 175 | 183 | 1500 | 801 | 769 | 183 | 80 | 46 |
| 16 | 180 | 159 | 100 | 166 | 175 | 360 | 1300 | 789 | 746 | 201 | 78 | 46 |
| 17 | 300 | 146 | 98 | 164 | 171 | 905 | 1150 | 707 | 499 | 192 | 78 | 487 |
| 18 | 200 | 140 | 96 | 162 | 213 | 1640 | 1050 | 696 | 463 | 190 | 78 | 125 |
| 19 | 400 | 117 | 95 | 160 | 191 | 10600 | 950 | 697 | 401 | 186 | 78 | 34 |
| 20 | 250 | 126 | 93 | 160 | 122 | 7860 | 1000 | 668 | 511 | 175 | 78 | 69 |
| 21 | 180 | 125 | 100 | 160 | 138 | 6840 | 1500 | 645 | 536 | 166 | 80 | 55 |
| 22 | 175 | 111 | 102 | 162 | 153 | 8560 | 2000 | 619 | 505 | 155 | 120 | 66 |
| 23 | 165 | 111 | 104 | 164 | 159 | 8140 | 1300 | 622 | 484 | 151 | 90 | 52 |
| 24 | 159 | 121 | 106 | 166 | 159 | 13300 | 1200 | 570 | 393 | 151 | 75 | 54 |
| 25 | 155 | 121 | 110 | 168 | 167 | 10800 | 1100 | 558 | 399 | 143 | 80 | 59 |
| 26 | 152 | 182 | 115 | 175 | 238 | 7360 | 1100 | 531 | 427 | 137 | 70 | 55 |
| 27 | 147 | 354 | 120 | 209 | 200 | 6200 | 1460 | 544 | 402 | 133 | 66 | 73 |
| 28 | 142 | 248 | 125 | 230 | 177 | 3990 | 4320 | 554 | 424 | 120 | 64 | 72 |
| 29 | 138 | 230 | 130 | 265 | 171 | 2490 | 4710 | 523 | 376 | 115 | 62 | 61 |
| 30 | 133 | 213 | 135 | 329 | --- | 1760 | 3780 | 511 | 339 | 110 | 60 | 59 |
| 31 | 129 | --- | 130 | 313 | --- | 1390 | --- | 499 | --- | 105 | 59 | --- |
| TOTAL | 4739 | 4508 | 4001 | 5877 | 5882 | 95080 | 75240 | 44169 | 13895 | 6197 | 2653 | 2188 |
| MEAN | 153 | 150 | 129 | 190 | 203 | 3067 | 2508 | 1424 | 463 | 200 | 85.6 | 72.9 |
| MAX | 400 | 354 | 195 | 329 | 350 | 13300 | 7730 | 5870 | 769 | 385 | 120 | 487 |
| MIN | 70 | 111 | 95 | 130 | 122 | 147 | 950 | 499 | 339 | 105 | 59 | 35 |
| AC-FT | 9400 | 8940 | 7940 | 11660 | 11670 | 188600 | 149200 | 87570 | 27560 | 12290 | 5260 | 4340 |

CAL YR 1983 TOTAL 223953 MEAN 614 MAX 8100 MIN 70 AC-FT 444200
WTR YR 1984 TOTAL 264410 MEAN 722 MAX 13300 MIN 35 AC-FT 524500

## 07144325 GYPSUM CREEK AT OLIVER STREET WICHITA, KS

LOCATION.--Lat 37 deg 38 min 49 sec, long 97 deg 16 min 49 sec, in NE1/4 NE1/4 sec.2, T.28 S., R.1 E., Sedgwick County, Hydrologic Unit 11030013, on left bank at downstream side of bridge on Oliver Street, 1.5 mi upstream from Dry Creek, in the southeast part of Wichita.

DRAINAGE AREA.--16.4 sq mi.

PERIOD OF RECORD.--The gage was operated on a seasonal basis from 1968 to 1982 by the City of Wichita. The U.S. Geological Survey began operating the gage on a seasonal basis March to November 1983.

GAGE.--Water-stage recorder. Datum of gage is 1,270.00 ft National Geodetic Vertical Datum of 1929 (City of Wichita bench mark).

REMARKS.--Records fair.

EXTREMES FOR CURRENT SEASON.--Maximum discharge, 526 cu ft per sec July 4, gage height, 19.15 ft; minimum recorde discharge, 0.52 cu ft per sec Oct. 5, 6, but may have been less during period of no gage-height record Sept. 2 to Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY 1983 TO DECEMBER 1983
MEAN VALUES

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | 2.5 | 5.1 | 2.5 | 2.8 | 3.3 | 1.6 | 1.4 | .70 | 3.8 | |
| 2 | | | 2.6 | 5.1 | 2.4 | 4.5 | 2.5 | 1.8 | 1.3 | .70 | 1.9 | |
| 3 | | | 3.0 | 37 | 2.4 | 2.6 | 17 | 1.7 | 1.1 | .65 | 1.3 | |
| 4 | | | 3.3 | 6.7 | 2.3 | 11 | 134 | 1.6 | .88 | .60 | 1.1 | |
| 5 | | | 3.6 | 4.5 | 2.3 | 7.1 | 10 | 1.7 | .83 | .60 | 1.7 | |
| 6 | | | 4.0 | 29 | 2.2 | 6.7 | 6.2 | 4.1 | .68 | .64 | 3.7 | |
| 7 | | | 3.5 | 35 | 2.2 | 6.2 | 4.8 | 2.7 | .88 | 1.1 | 2.5 | |
| 8 | | | 2.9 | 5.6 | 2.1 | 5.9 | 4.0 | 1.8 | 1.1 | 1.9 | 1.9 | |
| 9 | | | 2.6 | 3.6 | 2.1 | 5.6 | 3.4 | 1.9 | 1.1 | .93 | 8.2 | |
| 10 | | | 2.5 | 4.6 | 4.2 | 5.3 | 3.0 | 2.5 | 12 | .58 | 2.8 | |
| 11 | | | 2.5 | 3.6 | 2.7 | 5.1 | 2.8 | 2.3 | 6.6 | 7.2 | 1.7 | |
| 12 | | | 2.5 | 2.6 | 2.5 | 4.9 | 2.6 | 2.1 | 4.8 | 1.6 | 1.6 | |
| 13 | | | 2.5 | 2.5 | 2.7 | 4.6 | 2.4 | 2.0 | 5.9 | .86 | 1.5 | |
| 14 | | | 2.5 | 4.2 | 5.2 | 18 | 2.3 | 1.7 | 1.7 | .66 | 1.4 | |
| 15 | | | 2.5 | 2.4 | 2.3 | 6.9 | 2.2 | 1.7 | 10 | .69 | 1.5 | |
| 16 | | | 2.5 | 2.1 | 2.2 | 4.7 | 2.2 | 1.7 | 2.0 | 3.2 | 1.4 | |
| 17 | | | 4.0 | 2.0 | 4.5 | 4.4 | 2.0 | 1.6 | 1.4 | 4.7 | 1.3 | |
| 18 | | | 10 | 2.2 | 5.4 | 11 | 1.8 | 1.5 | 1.1 | 1.4 | 1.3 | |
| 19 | | | 25 | 2.6 | 2.5 | 32 | 2.9 | 1.5 | .98 | 1.5 | 2.7 | |
| 20 | | | 4.0 | 2.5 | 5.0 | 5.0 | 2.8 | 11 | 8.3 | 15 | 6.3 | |
| 21 | | | 2.7 | 3.0 | 19 | 3.7 | 1.9 | 6.6 | 2.0 | 6.5 | 2.3 | |
| 22 | | | 2.2 | 2.8 | 4.6 | 3.2 | 1.8 | 2.2 | 1.5 | 2.6 | 1.9 | |
| 23 | | | 4.3 | 2.9 | 3.6 | 3.0 | 1.7 | 1.8 | 1.2 | 1.9 | 9.7 | |
| 24 | | | 3.9 | 2.3 | 2.9 | 15 | 1.5 | 1.7 | 1.1 | 1.5 | 9.4 | |
| 25 | | | 4.4 | 2.5 | 4.5 | 30 | 1.6 | 1.5 | 1.0 | 1.4 | 4.8 | |
| 26 | | | 38 | 2.5 | 2.9 | 15 | 1.9 | 1.4 | 1.1 | 1.1 | 3.6 | |
| 27 | | | 8.9 | 4.9 | 3.4 | 30 | 1.8 | 1.4 | 1.2 | 1.2 | 3.0 | |
| 28 | | | 4.5 | 2.7 | 2.9 | 20 | 1.6 | 1.2 | 1.1 | .99 | 2.8 | |
| 29 | | | 35 | 3.7 | 4.0 | 15 | 1.7 | 1.3 | 1.0 | 4.7 | 2.7 | |
| 30 | | | 13 | 2.9 | 2.6 | 9.0 | 1.8 | 1.3 | 1.0 | 3.1 | 11 | |
| 31 | | | 5.7 | --- | 2.5 | --- | 1.5 | 1.1 | --- | 1.7 | --- | |
| TOTAL | | | 211.1 | 193.1 | 112.6 | 298.2 | 231.0 | 70.0 | 76.25 | 71.90 | 100.8 | |
| MEAN | | | 6.81 | 6.44 | 3.63 | 9.94 | 7.45 | 2.26 | 2.54 | 2.32 | 3.36 | |
| MAX | | | 38 | 37 | 19 | 32 | 134 | 11 | 12 | 15 | 11 | |
| MIN | | | 2.2 | 2.0 | 2.1 | 2.6 | 1.5 | 1.1 | .68 | .58 | 1.1 | |
| AC-FT | | | 419 | 383 | 223 | 591 | 458 | 139 | 151 | 143 | 200 | |

## 07144325 GYPSUM CREEK AT OLIVER STREET WICHITA, KS

LOCATION.--Lat 37 deg 38 min 49 sec, long 97 deg 16 min 49 sec, in NE1/4 NE1/4 sec.2, T.28 S., R.1 E., Sedgwick County, Hydrologic Unit 11030013, on left bank at downstream side of bridge on Oliver Street, 1.5 mi upstream from Dry Creek, in the southeast part of Wichita.

DRAINAGE AREA.--16.4 sq mi.

PERIOD OF RECORD.--The gage was operated on a seasonal basis from 1968 to 1982 by the City of Wichita. The U.S. Geological Survey began operating the gage on a seasonal basis March 1983 to November 1984 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,270.00 ft National Geodetic Vertical Datum of 1929 (City of Wichita bench mark).

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 526 cu ft per sec July 4, 1983, gage height, 19.15 ft; minimum recorded discharge, 0.52 cu ft per sec Oct. 5, 6, 1983, but may have been less during period of no gage-height record Sept. 22 to Oct. 4, 1983.

EXTREMES FOR CURRENT SEASON.--Maximum discharge, 239 cu ft per sec June 8, gage height, 15.14 ft; minimum recorded discharge, 0.57 cu ft per sec Aug. 15-20.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY 1984 TO DECEMBER 1984
MEAN VALUES

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | 1.9 | 23 | 4.6 | 1.0 | 1.4 | .60 | .60 | 1.8 | 7.0 | |
| 2 | | | 1.9 | 15 | 21 | .90 | 1.3 | .60 | 2.4 | 1.5 | .95 | |
| 3 | | | 1.9 | 7.0 | 9.1 | .95 | 1.2 | .60 | 1.0 | 1.3 | .87 | |
| 4 | | | 1.9 | 6.0 | 5.8 | .85 | 1.1 | .60 | .90 | 1.1 | .80 | |
| 5 | | | 1.8 | 8.0 | 7.0 | 1.1 | 1.0 | .60 | .80 | .90 | .75 | |
| 6 | | | 1.5 | 35 | 5.9 | 3.1 | .90 | .60 | .70 | .90 | .70 | |
| 7 | | | 1.9 | 17 | 6.4 | 4.0 | .85 | 1.9 | .60 | .70 | .65 | |
| 8 | | | 1.9 | 8.0 | 3.6 | 29 | .80 | 4.8 | .60 | .65 | .62 | |
| 9 | | | 2.0 | 7.0 | 3.2 | 26 | .75 | 1.3 | .60 | .60 | .60 | |
| 10 | | | 2.1 | 25 | 2.8 | 8.0 | .75 | .83 | .60 | 8.1 | .60 | |
| 11 | | | 2.1 | 10 | 2.7 | 6.1 | 1.9 | .79 | .60 | 3.3 | .60 | |
| 12 | | | 8.2 | 8.0 | 2.6 | 5.1 | 1.0 | .76 | .60 | 8.3 | .60 | |
| 13 | | | 2.7 | 5.5 | 2.5 | 12 | .97 | .71 | .60 | 17 | .60 | |
| 14 | | | 2.2 | 4.7 | 3.1 | 5.4 | .96 | .66 | .60 | 4.3 | .60 | |
| 15 | | | 2.1 | 4.2 | 2.4 | 5.5 | .95 | .60 | .60 | 3.5 | .65 | |
| 16 | | | 19 | 3.7 | 2.2 | 3.2 | 3.4 | .57 | .60 | 13 | .87 | |
| 17 | | | 13 | 3.5 | 2.1 | 2.7 | 1.7 | .57 | 25 | 3.9 | 2.7 | |
| 18 | | | 33 | 3.0 | 2.3 | 8.7 | .96 | .57 | 4.1 | 2.9 | 11 | |
| 19 | | | 15 | 3.0 | 8.3 | 3.9 | .90 | .57 | 3.0 | 2.4 | 9.2 | |
| 20 | | | 14 | 12 | 4.6 | 3.4 | .80 | .57 | 2.5 | 2.0 | 2.8 | |
| 21 | | | 8.9 | 6.7 | 2.5 | 3.0 | .75 | 1.2 | 2.0 | 1.7 | 1.1 | |
| 22 | | | 5.6 | 4.8 | 2.4 | 4.1 | .70 | 8.4 | 1.7 | 1.5 | .80 | |
| 23 | | | 54 | 3.7 | 2.1 | 9.6 | .65 | 1.2 | 1.5 | 1.2 | .70 | |
| 24 | | | 27 | 3.2 | 1.9 | 3.5 | .60 | 1.0 | 1.3 | 2.5 | .65 | |
| 25 | | | 12 | 2.9 | 1.8 | 2.1 | .60 | .90 | 1.1 | 9.0 | .62 | |
| 26 | | | 22 | 4.3 | 1.8 | 1.8 | .60 | .80 | .90 | 2.6 | .60 | |
| 27 | | | 13 | 5.0 | 7.0 | 1.9 | .60 | .70 | 6.7 | 2.0 | .60 | |
| 28 | | | 24 | 2.4 | 1.9 | 3.9 | .60 | .65 | 3.1 | 1.7 | .60 | |
| 29 | | | 6.0 | 13 | 1.2 | 4.2 | .60 | .60 | 2.5 | 1.4 | .60 | |
| 30 | | | 5.5 | 6.1 | 1.3 | 1.8 | .60 | .60 | 2.2 | 1.2 | .60 | |
| 31 | | | 7.0 | --- | 1.2 | --- | .60 | .60 | --- | 10 | --- | |
| TOTAL | | | 315.4 | 260.7 | 125.1 | 166.70 | 30.49 | 35.45 | 70.00 | 112.95 | 50.03 | |
| MEAN | | | 10.2 | 8.69 | 4.04 | 5.56 | .98 | 1.14 | 2.33 | 3.64 | 1.67 | |
| MAX | | | 54 | 35 | 21 | 29 | 3.4 | 8.4 | 25 | 17 | 11 | |
| MIN | | | 1.8 | 2.4 | 1.2 | .85 | .60 | .57 | .60 | .60 | .60 | |
| AC-FT | | | 626 | 517 | 248 | 331 | 60 | 70 | 139 | 224 | 99 | |

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## 07144340 DRY CREEK AT PAWNEE AVENUE WICHITA, KS

LOCATION.--Lat 37 deg 39 min 05 sec, long 97 deg 17 min 36 sec, in NW1/4 NW1/4 sec.2, T.28 S., R.1 E., Sedgwick County, Hydrologic Unit 11030013, on right bank at downstream side of culvert on Pawnee Avenue, 1.6 mi upstream from Gypsum Creek.

DRAINAGE AREA.--3.86 sq mi.

PERIOD OF RECORD.--March to November 1983 (seasonal records only).

GAGE.--Water-stage recorder. Datum of gage is 1,300.68 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

EXTREMES FOR CURRENT SEASON.--Maximum discharge, 1,890 cu ft per sec July 4, gage height, 10.95 ft; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY 1983 TO DECEMBER 1983
MEAN VALUES

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | .04 | 64 | .12 | .02 | .13 | .00 | .00 | .00 | 1.1 | |
| 2 | | | .03 | 2.5 | .07 | .01 | .03 | .00 | .00 | .00 | .06 | |
| 3 | | | .04 | .61 | .05 | 3.7 | 45 | .00 | .00 | .00 | .01 | |
| 4 | | | .05 | 65 | .04 | .07 | 357 | .00 | .00 | .00 | .01 | |
| 5 | | | .06 | 91 | .04 | 6.5 | 1.1 | .00 | .00 | .00 | .01 | |
| 6 | | | .08 | 2.5 | .04 | .35 | .19 | .24 | .00 | .00 | .60 | |
| 7 | | | .10 | .86 | .03 | .02 | .04 | .13 | .00 | .00 | .12 | |
| 8 | | | .15 | 2.2 | .03 | .02 | .02 | .01 | .00 | .00 | .01 | |
| 9 | | | .09 | 1.5 | .03 | .02 | .02 | .01 | .00 | .00 | .01 | |
| 10 | | | .06 | .38 | 2.5 | 34 | .02 | .01 | 28 | .00 | .01 | |
| 11 | | | .04 | .22 | .44 | 31 | .02 | .00 | 10 | 10 | .01 | |
| 12 | | | .03 | 2.6 | .08 | .36 | .02 | .00 | 5.9 | .04 | .01 | |
| 13 | | | .03 | .37 | .26 | 69 | .02 | .00 | 2.2 | .01 | .01 | |
| 14 | | | .03 | .21 | 8.8 | 21 | .02 | .00 | .01 | .01 | .01 | |
| 15 | | | .03 | .11 | .10 | .62 | .02 | .00 | 25 | .01 | .01 | |
| 16 | | | .03 | .10 | .05 | .14 | .02 | .00 | .03 | .75 | .01 | |
| 17 | | | .03 | .08 | 8.4 | .09 | .02 | .00 | .00 | 7.4 | .01 | |
| 18 | | | .03 | .09 | 9.3 | .18 | .02 | .00 | .00 | .03 | .01 | |
| 19 | | | 2.2 | .09 | .12 | .02 | .02 | .00 | .00 | .04 | .01 | |
| 20 | | | .89 | .09 | 6.1 | .01 | .02 | 19 | 16 | 34 | .01 | |
| 21 | | | .16 | .10 | 59 | .01 | .02 | 11 | .01 | 5.0 | .01 | |
| 22 | | | .09 | .35 | .76 | .01 | .02 | .02 | .00 | .02 | 3.4 | |
| 23 | | | .07 | .34 | .15 | .01 | .01 | .01 | .00 | .01 | 3.8 | |
| 24 | | | .06 | .13 | .05 | 8.8 | .01 | .00 | .00 | .00 | .38 | |
| 25 | | | .11 | .10 | 1.3 | 38 | .01 | .00 | .00 | .00 | .01 | |
| 26 | | | 101 | .08 | .06 | 1.9 | .01 | .00 | .00 | .00 | 15 | |
| 27 | | | 4.3 | 5.9 | .31 | 65 | .01 | .00 | .00 | .00 | 12 | |
| 28 | | | .63 | .34 | .11 | 139 | .00 | .00 | .00 | .00 | .05 | |
| 29 | | | 73 | 1.5 | 2.3 | 14 | .00 | .00 | .00 | 6.5 | .02 | |
| 30 | | | 4.7 | .38 | .04 | .62 | .00 | .00 | .00 | .59 | .01 | |
| 31 | | | .78 | --- | .02 | --- | .00 | .00 | --- | .01 | --- | |
| TOTAL | | | 188.94 | 243.73 | 100.70 | 434.48 | 403.84 | 30.43 | 87.15 | 64.42 | 36.72 | |
| MEAN | | | 6.09 | 8.12 | 3.25 | 14.5 | 13.0 | .98 | 2.91 | 2.08 | 1.22 | |
| MAX | | | 101 | 91 | 59 | 139 | 357 | 19 | 28 | 34 | 15 | |
| MIN | | | .03 | .08 | .02 | .01 | .00 | .00 | .00 | .00 | .01 | |
| AC-FT | | | 375 | 483 | 200 | 862 | 801 | 60 | 173 | 128 | 73 | |

## 07144340 DRY CREEK AT PAWNEE AVENUE WICHITA, KS

LOCATION.--Lat 37 deg 39 min 05 sec, long 97 deg 17 min 36 sec, in NW1/4 NW1/4 sec.2, T.28 S., R.1 E., Sedgwick County, Hydrologic Unit 11030013, on right bank at downstream side of culvert on Pawnee Avenue, 1.6 mi upstream from Gypsum Creek.

DRAINAGE AREA.--3.86 sq mi.

PERIOD OF RECORD.--March 1983 to November 1984 (discontinued). Seasonal records only.

GAGE.--Water-stage recorder. Datum of gage is 1,300.68 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 cu ft per sec July 4, 1983, gage height, 10.95 ft; no flow at times.

EXTREMES FOR CURRENT SEASON.--Maximum discharge, 552 cu ft per sec June 8, gage height, 7.44 ft; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY 1984 TO DECEMBER 1984
MEAN VALUES

| DAY | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | .01 | .58 | .28 | .02 | .00 | .00 | .00 | .00 | 7.7 | |
| 2 | | | .01 | 18 | 26 | .01 | .00 | .00 | .00 | .00 | .10 | |
| 3 | | | .01 | 1.5 | .66 | .01 | .00 | .00 | .00 | .00 | .06 | |
| 4 | | | .01 | .61 | .09 | .01 | .00 | .00 | .00 | .00 | .05 | |
| 5 | | | .01 | .40 | 1.3 | .00 | .00 | .00 | .00 | .00 | .04 | |
| 6 | | | .01 | .35 | .74 | 5.1 | .00 | .00 | .00 | .00 | .04 | |
| 7 | | | .01 | 52 | .11 | 1.4 | .00 | .00 | .00 | .00 | .04 | |
| 8 | | | .01 | 40 | .04 | 52 | .00 | .03 | .00 | .00 | .03 | |
| 9 | | | .01 | 1.5 | .03 | 39 | .00 | .00 | .00 | .00 | .03 | |
| 10 | | | .01 | 17 | .02 | .03 | .00 | .00 | .00 | 6.7 | .02 | |
| 11 | | | .00 | 18 | .02 | .00 | .00 | .00 | .00 | .00 | .02 | |
| 12 | | | 6.1 | 5.7 | .02 | .00 | .00 | .00 | .00 | 11 | .02 | |
| 13 | | | .02 | .74 | .01 | 23 | .00 | .00 | .00 | 31 | .02 | |
| 14 | | | .01 | .47 | 1.2 | .00 | .00 | .00 | .00 | .17 | .01 | |
| 15 | | | .08 | .35 | .04 | .56 | .00 | .00 | .00 | .15 | .01 | |
| 16 | | | 51 | .31 | .03 | .00 | .71 | .00 | .00 | 20 | .01 | |
| 17 | | | 9.1 | .30 | .02 | .00 | .01 | .00 | 88 | .18 | 2.3 | |
| 18 | | | 77 | .32 | .02 | 18 | .00 | .00 | .19 | .13 | 26 | |
| 19 | | | 9.4 | .35 | 3.2 | .00 | .00 | .00 | .00 | .12 | 9.9 | |
| 20 | | | 13 | 12 | .49 | .00 | .00 | .00 | .00 | .12 | .55 | |
| 21 | | | 1.6 | 1.8 | .04 | .00 | .00 | .00 | .00 | .12 | .27 | |
| 22 | | | .65 | .63 | .03 | .32 | .00 | 19 | .00 | .12 | .01 | |
| 23 | | | 123 | .36 | .02 | 13 | .00 | .00 | .00 | .11 | .01 | |
| 24 | | | 18 | .33 | .02 | .24 | .00 | .00 | .00 | .10 | .00 | |
| 25 | | | 1.1 | .30 | .02 | .00 | .00 | .00 | .00 | 10 | .00 | |
| 26 | | | 21 | .31 | .02 | .00 | .00 | .00 | .00 | .08 | .00 | |
| 27 | | | 2.2 | 1.0 | 1.5 | .00 | .00 | .00 | 1.6 | .07 | .00 | |
| 28 | | | 18 | .28 | .05 | .18 | .00 | .00 | .00 | .07 | .00 | |
| 29 | | | 1.1 | 16 | .04 | 2.0 | .00 | .00 | .00 | .06 | .00 | |
| 30 | | | .56 | .57 | .03 | .00 | .00 | .00 | .00 | .06 | .00 | |
| 31 | | | 3.0 | --- | .02 | --- | .00 | .00 | --- | 38 | --- | |
| TOTAL | | | 356.02 | 192.06 | 36.11 | 154.86 | .72 | 19.03 | 89.79 | 118.36 | 47.24 | |
| MEAN | | | 11.5 | 6.40 | 1.16 | 5.16 | .023 | .61 | 2.99 | 3.82 | 1.57 | |
| MAX | | | 123 | 52 | 26 | 52 | .71 | 19 | 88 | 38 | 26 | |
| MIN | | | .00 | .28 | .01 | .00 | .00 | .00 | .00 | .00 | .00 | |
| AC-FT | | | 706 | 381 | 72 | 307 | 1.4 | 38 | 178 | 235 | 94 | |

## 07144550 ARKANSAS RIVER AT DERBY, KS

LOCATION.--Lat 37 deg 32 min 34 sec, long 97 deg 16 min 31 sec, in SE1/4 SW1/4 NW1/4 sec.12, T.29 S., R.1 E., Sedgwick County, Hydrologic Unit 11030013, at highway bridge on the west edge of Derby, 0.9 mi below mouth of bypass channel, and at mile 749.5.

DRAINAGE AREA.--40,830 sq mi, of which 7,263 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,229.95 ft National Geodetic Vertical Datum of 1929 (City of Wichita bench mark).

REMARKS.--Records fair except October to January, July, and September, which are poor. Flow moderately regulated since 1943 by John Martin Reservoir (see sta 07130000). Low flow regulated by City of Wichita low-water dam. Diversions above station for irrigation. Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--16 years, 1,157 cu ft per sec, 838,200 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,700 cu ft per sec Nov. 1, 1979, gage height, 15.87 ft; minimum, 78 cu ft per sec Dec. 8, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 19 | 1900 | 12,900 | 10.20 | Apr. 29 | 1600 | 4,930 | 6.94 |
| Mar. 24 | 1800 | *17,900 | 11.70 | May 2 | 1900 | 5,780 | 7.38 |
| Apr. 9 | 0100 | 9,990 | 9.18 | Sep. 17 | 1600 | 4,060 | 6.41 |

Minimum discharge, 82 cu ft per sec Sept. 13.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 150 | 251 | 302 | 190 | 428 | 199 | 1510 | 4950 | 595 | 560 | 165 | 120 |
| 2 | 145 | 242 | 292 | 195 | 438 | 198 | 1630 | 5120 | 580 | 600 | 171 | 149 |
| 3 | 140 | 219 | 397 | 209 | 413 | 239 | 1770 | 4710 | 567 | 500 | 170 | 135 |
| 4 | 140 | 210 | 292 | 242 | 380 | 1240 | 2220 | 3470 | 566 | 450 | 159 | 130 |
| 5 | 160 | 188 | 274 | 285 | 350 | 355 | 2950 | 2640 | 578 | 400 | 149 | 126 |
| 6 | 170 | 203 | 252 | 304 | 320 | 323 | 3360 | 2020 | 573 | 350 | 149 | 120 |
| 7 | 180 | 208 | 250 | 308 | 325 | 277 | 3940 | 1680 | 639 | 330 | 209 | 118 |
| 8 | 190 | 211 | 252 | 328 | 306 | 284 | 7060 | 1510 | 884 | 320 | 186 | 101 |
| 9 | 205 | 349 | 239 | 381 | 392 | 272 | 8600 | 1430 | 1500 | 310 | 193 | 114 |
| 10 | 212 | 264 | 232 | 380 | 348 | 271 | 5630 | 1340 | 632 | 300 | 179 | 119 |
| 11 | 396 | 250 | 231 | 358 | 316 | 264 | 4420 | 1260 | 700 | 290 | 171 | 117 |
| 12 | 283 | 240 | 223 | 330 | 298 | 409 | 4360 | 1160 | 762 | 280 | 169 | 106 |
| 13 | 265 | 230 | 231 | 300 | 286 | 307 | 3350 | 1090 | 768 | 270 | 167 | 106 |
| 14 | 262 | 220 | 226 | 270 | 278 | 297 | 2670 | 1120 | 612 | 265 | 165 | 122 |
| 15 | 242 | 230 | 197 | 240 | 279 | 292 | 1900 | 1010 | 849 | 260 | 158 | 108 |
| 16 | 292 | 250 | 190 | 220 | 290 | 524 | 1560 | 989 | 974 | 280 | 146 | 106 |
| 17 | 452 | 220 | 180 | 210 | 271 | 1700 | 1370 | 904 | 711 | 270 | 145 | 1160 |
| 18 | 308 | 220 | 160 | 205 | 318 | 2540 | 1290 | 870 | 701 | 265 | 146 | 458 |
| 19 | 284 | 220 | 150 | 200 | 289 | 8950 | 1200 | 981 | 555 | 260 | 148 | 300 |
| 20 | 622 | 220 | 150 | 200 | 232 | 8730 | 1260 | 1070 | 591 | 258 | 151 | 200 |
| 21 | 472 | 220 | 155 | 205 | 221 | 6790 | 1770 | 876 | 710 | 228 | 158 | 140 |
| 22 | 285 | 220 | 160 | 210 | 250 | 8020 | 2320 | 830 | 680 | 224 | 356 | 150 |
| 23 | 240 | 220 | 165 | 218 | 251 | 10300 | 1570 | 832 | 737 | 225 | 188 | 130 |
| 24 | 222 | 230 | 170 | 239 | 247 | 14900 | 1490 | 772 | 662 | 227 | 174 | 130 |
| 25 | 226 | 230 | 175 | 263 | 249 | 12900 | 1390 | 744 | 566 | 222 | 153 | 135 |
| 26 | 219 | 330 | 180 | 287 | 412 | 8100 | 1320 | 693 | 615 | 218 | 145 | 130 |
| 27 | 193 | 600 | 185 | 305 | 376 | 6340 | 1250 | 746 | 586 | 203 | 158 | 170 |
| 28 | 182 | 380 | 190 | 314 | 254 | 4620 | 3340 | 692 | 624 | 187 | 144 | 170 |
| 29 | 251 | 370 | 190 | 339 | 217 | 3030 | 4530 | 653 | 657 | 203 | 148 | 160 |
| 30 | 318 | 330 | 209 | 396 | --- | 2150 | 3250 | 635 | 550 | 181 | 143 | 150 |
| 31 | 232 | --- | 195 | 408 | --- | 1780 | --- | 618 | --- | 160 | 140 | --- |
| TOTAL | 7938 | 7775 | 6694 | 8539 | 9034 | 106601 | 84280 | 47415 | 20724 | 9096 | 5203 | 5480 |
| MEAN | 256 | 259 | 216 | 275 | 312 | 3439 | 2809 | 1530 | 691 | 293 | 168 | 183 |
| MAX | 622 | 600 | 397 | 408 | 438 | 14900 | 8600 | 5120 | 1500 | 600 | 356 | 1160 |
| MIN | 140 | 188 | 150 | 190 | 217 | 198 | 1200 | 618 | 550 | 160 | 140 | 101 |
| AC-FT | 15750 | 15420 | 13280 | 16940 | 17920 | 211400 | 167200 | 94050 | 41110 | 18040 | 10320 | 10870 |

CAL YR 1983 TOTAL 273728 MEAN 750 MAX 9660 MIN 122 AC-FT 542900
WTR YR 1984 TOTAL 318779 MEAN 871 MAX 14900 MIN 101 AC-FT 632300

## 07144780 NORTH FORK NINNESCAH RIVER ABOVE CHENEY RESERVOIR, KS

LOCATION.--Lat 37 deg 50 min 41 sec, long 97 deg 56 min 09 sec, in SW1/4 NE1/4 SW1/4 sec.25, T.25 S., R.6 W., Reno County, Hydrologic Unit 11030014, at downstream side of bridge on State Highway 17, 12 mi south of Hutchinson, 12.5 mi upstream from Cheney Dam, and at mile 25.2.

DRAINAGE AREA.--787 sq mi, of which 237 sq mi is probably noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,631.75 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--19 years, 139 cu ft per sec, 100,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 87,000 cu ft per sec Oct. 30, 1979, gage height, 11.65 ft, from rating curve extended above 43,000 cu ft per sec; no flow July 14, 1966, part of Aug. 23, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 21 | 1900 | 2,020 | 6.33 | Apr. 30 | 0100 | *3,020 | 7.17 |
| Mar. 24 | 0700 | 1,970 | 6.35 | June 13 | 2330 | 2,680 | 6.89 |
| Apr. 27 | 0100 | 1,910 | 6.29 | | | | |

Minimum discharge, 3.5 cu ft per sec Sept. 7, 8.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 53 | 80 | 69 | 115 | 86 | 177 | 879 | 81 | 72 | 24 | 6.7 |
| 2 | 20 | 58 | 80 | 76 | 112 | 85 | 262 | 530 | 76 | 64 | 24 | 6.3 |
| 3 | 20 | 63 | 90 | 84 | 105 | 84 | 420 | 435 | 76 | 59 | 23 | 7.1 |
| 4 | 20 | 69 | 89 | 92 | 93 | 91 | 320 | 345 | 86 | 55 | 21 | 8.6 |
| 5 | 20 | 65 | 94 | 100 | 96 | 108 | 218 | 256 | 85 | 52 | 20 | 6.2 |
| 6 | 21 | 70 | 95 | 105 | 86 | 103 | 169 | 243 | 97 | 50 | 19 | 6.4 |
| 7 | 25 | 82 | 90 | 105 | 86 | 96 | 333 | 325 | 78 | 47 | 18 | 4.0 |
| 8 | 28 | 86 | 95 | 110 | 82 | 89 | 640 | 286 | 74 | 42 | 18 | 3.9 |
| 9 | 31 | 90 | 96 | 100 | 90 | 85 | 423 | 229 | 86 | 40 | 21 | 6.6 |
| 10 | 32 | 90 | 93 | 90 | 98 | 86 | 460 | 198 | 115 | 38 | 22 | 5.3 |
| 11 | 44 | 89 | 93 | 95 | 98 | 86 | 514 | 172 | 94 | 40 | 20 | 8.2 |
| 12 | 56 | 84 | 93 | 88 | 96 | 94 | 400 | 159 | 84 | 37 | 19 | 6.3 |
| 13 | 55 | 80 | 94 | 82 | 92 | 104 | 266 | 153 | 365 | 34 | 17 | 4.5 |
| 14 | 49 | 74 | 97 | 76 | 88 | 102 | 198 | 139 | 973 | 32 | 16 | 5.3 |
| 15 | 39 | 71 | 90 | 72 | 86 | 101 | 168 | 135 | 549 | 30 | 15 | 6.8 |
| 16 | 40 | 70 | 80 | 66 | 86 | 109 | 150 | 126 | 260 | 121 | 16 | 9.8 |
| 17 | 45 | 69 | 70 | 68 | 88 | 254 | 160 | 120 | 199 | 95 | 13 | 16 |
| 18 | 46 | 65 | 70 | 64 | 92 | 458 | 128 | 109 | 157 | 118 | 12 | 16 |
| 19 | 58 | 65 | 60 | 60 | 92 | 730 | 122 | 108 | 127 | 104 | 13 | 15 |
| 20 | 54 | 65 | 58 | 64 | 88 | 550 | 153 | 116 | 114 | 72 | 13 | 13 |
| 21 | 56 | 65 | 56 | 76 | 96 | 1310 | 177 | 112 | 101 | 57 | 13 | 11 |
| 22 | 64 | 65 | 54 | 90 | 87 | 817 | 196 | 110 | 89 | 47 | 15 | 10 |
| 23 | 75 | 68 | 52 | 102 | 85 | 949 | 174 | 107 | 79 | 43 | 14 | 11 |
| 24 | 71 | 70 | 50 | 120 | 84 | 1630 | 153 | 100 | 165 | 39 | 13 | 11 |
| 25 | 60 | 69 | 52 | 140 | 82 | 1140 | 135 | 97 | 256 | 38 | 13 | 9.4 |
| 26 | 59 | 71 | 60 | 135 | 84 | 724 | 247 | 95 | 171 | 36 | 12 | 11 |
| 27 | 59 | 102 | 70 | 130 | 89 | 460 | 1090 | 120 | 101 | 34 | 11 | 14 |
| 28 | 54 | 100 | 66 | 160 | 92 | 360 | 395 | 126 | 78 | 32 | 11 | 18 |
| 29 | 56 | 58 | 64 | 150 | 87 | 262 | 1140 | 104 | 70 | 30 | 10 | 18 |
| 30 | 56 | 90 | 60 | 140 | --- | 201 | 1960 | 95 | 72 | 25 | 9.7 | 22 |
| 31 | 53 | --- | 62 | 128 | --- | 177 | --- | 87 | --- | 25 | 8.4 | --- |
| TOTAL | 1395 | 2249 | 2353 | 3037 | 2653 | 11531 | 11362 | 6215 | 4915 | 1609 | 492.1 | 295.2 |
| MEAN | 45.0 | 75.0 | 75.9 | 98.0 | 91.5 | 372 | 379 | 201 | 164 | 51.9 | 15.9 | 9.84 |
| MAX | 75 | 102 | 97 | 160 | 115 | 1630 | 1960 | 879 | 973 | 121 | 24 | 22 |
| MIN | 20 | 53 | 50 | 60 | 82 | 84 | 122 | 87 | 70 | 25 | 8.4 | 3.9 |
| AC-FT | 2770 | 4460 | 4670 | 6020 | 5260 | 22870 | 22540 | 12330 | 9750 | 3190 | 976 | [illegible] |

CAL YR 1983 TOTAL 50572.0 MEAN 139 MAX 2200 MIN 10 AC-FT 100300
WTR YR 1984 TOTAL 48110.3 MEAN 131 MAX 1960 MIN 3.9 AC-FT 95430

## 07144780 NORTH FORK NINNESCAH RIVER ABOVE CHENEY RESERVOIR, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

REMARKS.--Sediment samples collected only at selected flow conditions.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|
| OCT | | | | |
| 06... | 11:30 | 18 | 980 | 15.0 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| DEC | | | | |
| 07... | 13:05 | 93 | 77 | 19 |
| FEB | | | | |
| 22... | 16:30 | 87 | 244 | 57 |
| APR | | | | |
| 11... | 15:35 | 498 | 225 | 303 |
| MAY | | | | |
| 09... | 11:30 | 229 | 83 | 51 |
| JUN | | | | |
| 27... | 12:10 | 98 | 111 | 29 |

### PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | SEDI-MENT, SUS-PENDED (MG/L) | BED MAT. FALL DIAM. % FINER THAN .062 MM | BED MAT. FALL DIAM. % FINER THAN .125 MM | BED MAT. FALL DIAM. % FINER THAN .250 MM | BED MAT. FALL DIAM. % FINER THAN .500 MM | BED MAT. FALL DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 07... | 13:05 | 77 | 0 | 5 | 17 | 60 | 94 | 98 | 100 | -- | -- |
| MAY | | | | | | | | | | | |
| 09... | 11:30 | 83 | 0 | 2 | 49 | 81 | 94 | 98 | 99 | 99 | 100 |

BEST COPY AVAILABLE

## 07144790 CHENEY RESERVOIR NEAR CHENEY, KS

LOCATION.--Lat 37 deg 43 min 34 sec, long 97 deg 47 min 38 sec, in NW1/4 NE1/4 SE1/4 sec.6, T.27 S., R.4 W., Sedgwick County, Hydrologic Unit 11030014, in control-house structure at outlet works of Cheney Dam on North Fork Ninnescah River, 6.0 mi north of Cheney, and at mile 15.9.

DRAINAGE AREA.--901 sq mi, of which 237 sq mi is probably noncontributing.

PERIOD OF RECORD.--November 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Nov. 17, 1964. Total capacity, 566,300 acre-ft, consisting of the following: Dead storage, 979 acre-ft below elevation 1,378.5 ft; fish and wildlife storage, 14,310 acre-ft between elevations 1,378.5 ft and 1,392.9 ft; conservation pool, 151,800 acre-ft between elevations 1,392.9 ft and 1,421.6 ft; flood control pool, 80,860 acre-ft between elevations 1,421.6 ft and 1,429.0 ft, crest of uncontrolled spillway; and uncontrolled storage, 318,300 acre-ft between elevations 1,429.0 ft and 1,447.8 ft. Reservoir is used for supplemental water supply for municipal and industrial uses in the city of Wichita, fish and wildlife conservation, flood control, and recreational purposes in Cheney Division Wichita project. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,429.19 ft Nov. 2, 1979, contents, 250,300 acre-ft; minimum since conservation pool was first filled, 1,412.33 ft Dec. 2-4, 1971, contents, 93,300 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,424.59 ft Mar. 28, contents, 197,200 acre-ft; minimum, 1,419.22 ft Sept. 30, contents, 145,400 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by U.S. Bureau of Reclamation computed in 1965)

| | | | |
|---|---|---|---|
| 1,415 | 111,600 | 1,421 | 161,400 |
| 1,417 | 126,800 | 1,423 | 180,700 |
| 1,419 | 143,400 | 1,425 | 201,600 |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1419.64 | 1419.74 | 1420.08 | 1420.32 | 1420.84 | 1421.22 | 1423.78 | 1422.57 | 1421.88 | 1421.81 | 1420.97 | 1420.00 |
| 2 | 1419.61 | 1419.75 | 1420.14 | 1420.33 | 1420.87 | 1421.23 | 1423.71 | 1422.49 | 1421.83 | 1421.79 | 1420.96 | 1420.00 |
| 3 | 1419.63 | 1419.80 | 1420.18 | 1420.34 | 1420.89 | 1421.33 | 1423.62 | 1422.35 | 1421.91 | 1421.78 | 1420.92 | 1419.97 |
| 4 | 1419.59 | 1419.78 | 1420.22 | 1420.35 | 1420.90 | 1421.31 | 1423.32 | 1422.22 | 1421.69 | 1421.75 | 1420.91 | 1419.92 |
| 5 | 1419.58 | 1419.78 | 1420.26 | 1420.37 | 1420.90 | 1421.30 | 1423.16 | 1422.12 | 1421.91 | 1421.75 | 1420.87 | 1419.90 |
| 6 | 1419.54 | 1419.82 | 1420.19 | 1420.38 | 1420.91 | 1421.32 | 1422.92 | 1421.96 | 1421.92 | 1421.72 | 1420.84 | 1419.80 |
| 7 | 1419.54 | 1419.82 | 1420.22 | 1420.41 | 1420.92 | 1421.37 | 1423.22 | 1421.85 | 1421.92 | 1421.70 | 1420.82 | 1419.70 |
| 8 | 1419.55 | 1419.83 | 1420.25 | 1420.44 | 1420.94 | 1421.30 | 1423.42 | 1421.77 | 1421.93 | 1421.64 | 1420.81 | 1419.73 |
| 9 | 1419.53 | 1420.11 | 1420.22 | 1420.48 | 1420.99 | 1421.33 | 1423.49 | 1421.72 | 1421.93 | 1421.61 | 1420.79 | 1419.70 |
| 10 | 1419.49 | 1420.23 | 1420.27 | 1420.49 | 1421.00 | 1421.32 | 1423.59 | 1421.77 | 1421.92 | 1421.60 | 1420.75 | 1419.70 |
| 11 | 1419.64 | 1420.29 | 1420.27 | 1420.52 | 1421.03 | 1421.34 | 1423.71 | 1421.81 | 1421.91 | 1421.57 | 1420.72 | 1419.65 |
| 12 | 1419.55 | 1420.26 | 1420.25 | 1420.54 | 1421.04 | 1421.38 | 1423.58 | 1421.84 | 1421.93 | 1421.52 | 1420.69 | 1419.62 |
| 13 | 1419.54 | 1420.23 | 1420.29 | 1420.52 | 1421.05 | 1421.41 | 1423.49 | 1421.89 | 1422.31 | 1421.48 | 1420.65 | 1419.60 |
| 14 | 1419.46 | 1420.21 | 1420.34 | 1420.54 | 1421.02 | 1421.41 | 1423.31 | 1421.87 | 1422.69 | 1421.44 | 1420.62 | 1419.56 |
| 15 | 1419.52 | 1420.21 | 1420.26 | 1420.56 | 1421.22 | 1421.46 | 1423.15 | 1421.88 | 1422.77 | 1421.42 | 1420.58 | 1419.50 |
| 16 | 1419.58 | 1420.23 | 1420.24 | 1420.57 | 1421.09 | 1421.62 | 1422.99 | 1421.88 | 1422.73 | 1421.45 | 1420.53 | 1419.45 |
| 17 | 1419.55 | 1420.22 | 1420.31 | 1420.60 | 1421.04 | 1421.65 | 1422.93 | 1421.91 | 1422.72 | 1421.45 | 1420.52 | 1419.47 |
| 18 | 1419.56 | 1420.18 | 1420.24 | 1420.60 | 1421.20 | 1422.01 | 1422.66 | 1421.92 | 1422.68 | 1421.43 | 1420.50 | 1419.47 |
| 19 | 1419.68 | 1420.00 | 1420.24 | 1420.62 | 1421.15 | 1422.31 | 1422.42 | 1421.95 | 1422.63 | 1421.40 | 1420.45 | 1419.47 |
| 20 | 1419.70 | 1419.95 | 1420.27 | 1420.62 | 1421.13 | 1422.42 | 1422.45 | 1421.94 | 1422.54 | 1421.37 | 1420.39 | 1419.46 |
| 21 | 1419.71 | 1419.95 | 1420.28 | 1420.62 | 1421.13 | 1422.75 | 1422.53 | 1421.95 | 1422.48 | 1421.32 | 1420.39 | 1419.40 |
| 22 | 1419.69 | 1420.08 | 1420.27 | 1420.64 | 1421.14 | 1422.93 | 1422.49 | 1421.97 | 1422.39 | 1421.30 | 1420.35 | 1419.40 |
| 23 | 1419.69 | 1420.14 | 1420.28 | 1420.65 | 1421.16 | 1423.54 | 1422.42 | 1421.92 | 1422.28 | 1421.29 | 1420.32 | 1419.37 |
| 24 | 1419.70 | 1420.16 | 1420.27 | 1420.66 | 1421.16 | 1424.03 | 1422.32 | 1421.87 | 1422.17 | 1421.26 | 1420.28 | 1419.43 |
| 25 | 1419.69 | 1420.24 | 1420.27 | 1420.66 | 1421.17 | 1424.22 | 1422.14 | 1421.92 | 1422.11 | 1421.24 | 1420.25 | 1419.32 |
| 26 | 1419.69 | 1420.06 | 1420.27 | 1420.70 | 1421.32 | 1424.42 | 1422.14 | 1421.89 | 1422.03 | 1421.21 | 1420.22 | 1419.27 |
| 27 | 1419.67 | 1419.96 | 1420.32 | 1420.71 | 1421.30 | 1424.52 | 1422.22 | 1421.94 | 1421.95 | 1421.17 | 1420.20 | 1419.30 |
| 28 | 1419.67 | 1420.06 | 1420.31 | 1420.73 | 1421.22 | 1424.42 | 1422.16 | 1421.92 | 1421.90 | 1421.13 | 1420.20 | 1419.27 |
| 29 | 1419.71 | 1420.05 | 1420.31 | 1420.80 | 1421.20 | 1424.29 | 1422.41 | 1421.92 | 1421.86 | 1421.09 | 1420.15 | 1419.25 |
| 30 | 1419.69 | 1420.04 | 1420.30 | 1420.79 | --- | 1424.12 | 1422.59 | 1421.91 | 1421.84 | 1421.05 | 1420.13 | 1419.22 |
| 31 | 1419.69 | --- | 1420.32 | 1420.82 | --- | 1423.97 | --- | 1421.87 | --- | 1421.03 | 1420.06 | --- |
| MEAN | 1419.62 | 1420.04 | 1420.26 | 1420.56 | 1421.07 | 1422.36 | 1422.94 | 1421.96 | 1422.17 | 1421.44 | 1420.54 | 1419.56 |
| MAX | 1419.71 | 1420.29 | 1420.34 | 1420.82 | 1421.32 | 1424.52 | 1423.78 | 1422.57 | 1422.77 | 1421.81 | 1420.97 | 1420.00 |
| MIN | 1419.46 | 1419.74 | 1420.08 | 1420.32 | 1420.84 | 1421.22 | 1422.14 | 1421.72 | 1421.84 | 1421.03 | 1420.06 | 1419.22 |
| (+) | 149,500 | 152,600 | 155,200 | 159,700 | 163,300 | 190,700 | 176,700 | 169,600 | 169,400 | 161,700 | 152,800 | [illegible],400 |
| (#) | +900 | +3,100 | +2,600 | +4,500 | +3,600 | +27,400 | -14,000 | -7,100 | -200 | -7,700 | -8,900 | -7,400 |

CAL YR 1983 ........................ (#) -3,600
WTR YR 1984 ........................ (#) -3,200

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 07144795 NORTH FORK NINNESCAH RIVER AT CHENEY DAM, KS

LOCATION.--Lat 37 deg 43 min 17 sec, long 97 deg 47 min 39 sec, in NE1/4 SW1/4 SE1/4 sec.6, T.27 S., R.4 W., Sedgwick County, Hydrologic Unit 11030014, 1,400 ft downstream from Cheney Dam, 6.0 mi north of Cheney, and at mile 15.5.

DRAINAGE AREA.--901 sq mi, of which 237 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and concrete Parshall flume. Datum of gage is 1,366.022 ft National Geodetic Vertical Datum of 1929 (U.S. Bureau of Reclamation bench mark). Prior to Oct. 1, 1973, at datum 1.00 ft higher.

REMARKS.--Records good except those below 0.20 cu ft per sec, which are poor. Flow completely regulated since 1964 by Cheney Reservoir 1,400 ft upstream (see sta 07144790).

AVERAGE DISCHARGE.--20 years, 109 cu ft per sec, 78,970 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,070 cu ft per sec Nov. 13, 1979, gage height, 4.80 ft; maximum observed gage height, 5.92 ft Oct. 23, 1973; no flow at times in 1966, 1968, 1980, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,470 cu ft per sec Apr. 3-7, gage height, 4.46 ft; minimum daily discharge, 0.05 cu ft per sec Feb. 27 to Mar. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .38 | .23 | .27 | .07 | .08 | .05 | 1240 | 884 | .19 | .26 | .14 | .11 |
| 2 | .37 | .20 | .27 | .07 | .09 | .05 | 1270 | 946 | .18 | .27 | .14 | .11 |
| 3 | .36 | .18 | .30 | .09 | .09 | .05 | 1390 | 946 | .26 | .30 | .14 | .09 |
| 4 | .36 | .16 | .27 | .09 | .08 | .08 | 1470 | 945 | .28 | .29 | .14 | .09 |
| 5 | .34 | .17 | .34 | .22 | .10 | .10 | 1470 | 944 | .23 | .31 | .14 | .09 |
| 6 | .39 | .19 | .52 | .18 | .05 | .10 | 1470 | 934 | .23 | .30 | .14 | .08 |
| 7 | .38 | .17 | .27 | .19 | .05 | .10 | 900 | 924 | .23 | .26 | .14 | .09 |
| 8 | .36 | .17 | .27 | .17 | .09 | .10 | 135 | 631 | .24 | .23 | .14 | .09 |
| 9 | .34 | .20 | .34 | .14 | .11 | .10 | 206 | 302 | .26 | .20 | .14 | .09 |
| 10 | .31 | .17 | .27 | .15 | .09 | .10 | 523 | 97 | .23 | .15 | .14 | .08 |
| 11 | .29 | .15 | .26 | .20 | .09 | .15 | 646 | .28 | .23 | .13 | .12 | .09 |
| 12 | .19 | .15 | .25 | .11 | .07 | .20 | 717 | .24 | .23 | .12 | .14 | .09 |
| 13 | .17 | .16 | .25 | .10 | .07 | .15 | 878 | .24 | .36 | .13 | .17 | .09 |
| 14 | .19 | .20 | .24 | .10 | .08 | .10 | 970 | .23 | 113 | .12 | .14 | .08 |
| 15 | .20 | .20 | .22 | .10 | .09 | .10 | 970 | .22 | 261 | .12 | .17 | .08 |
| 16 | .21 | .19 | .18 | .10 | .09 | .30 | 970 | .21 | 261 | .15 | .17 | .08 |
| 17 | .21 | .20 | .23 | .10 | .08 | .25 | 970 | .20 | 261 | .11 | .15 | .09 |
| 18 | .17 | .20 | .22 | .10 | .09 | .55 | 1110 | .20 | 261 | .10 | .11 | .09 |
| 19 | .24 | .20 | .20 | .10 | .07 | .50 | 1210 | .22 | 261 | .09 | .16 | .09 |
| 20 | .21 | .20 | .20 | .10 | .07 | .35 | 722 | .20 | 421 | .09 | .17 | .09 |
| 21 | .17 | .20 | .17 | .10 | .07 | 115 | 246 | .21 | 523 | .10 | .17 | .09 |
| 22 | .15 | .20 | .14 | .10 | .08 | 316 | 246 | .22 | 523 | .15 | .19 | .09 |
| 23 | .16 | .22 | .14 | .11 | .07 | 382 | 521 | .21 | 523 | .15 | .18 | .09 |
| 24 | .15 | .20 | .12 | .13 | .06 | 157 | 717 | .22 | 524 | .15 | .17 | .09 |
| 25 | .15 | .22 | .11 | .15 | .06 | .37 | 717 | .20 | 538 | .18 | .17 | .08 |
| 26 | .15 | .29 | .11 | .14 | .11 | 105 | 717 | .16 | 538 | .16 | .16 | .08 |
| 27 | .15 | .34 | .09 | .10 | .05 | 398 | 568 | .21 | 371 | .14 | .13 | .08 |
| 28 | .16 | .45 | .09 | .10 | .05 | 646 | 470 | .16 | 261 | .14 | .13 | .08 |
| 29 | .15 | .27 | .08 | .09 | .05 | 900 | 478 | .15 | 86 | .14 | .12 | .08 |
| 30 | .15 | .30 | .08 | .09 | --- | 1140 | 575 | .18 | .28 | .14 | .12 | .07 |
| 31 | .15 | --- | .07 | .08 | --- | 1240 | --- | .18 | --- | .12 | .11 | --- |
| TOTAL | 7.36 | 6.38 | 6.57 | 3.67 | 2.23 | 5402.85 | 24492 | 7557.34 | 5729.43 | 5.30 | 4.55 | 2.62 |
| MEAN | .24 | .21 | .21 | .12 | .077 | 174 | 816 | 244 | 191 | .17 | .15 | .087 |
| MAX | .39 | .45 | .52 | .22 | .11 | 1240 | 1470 | 946 | 538 | .31 | .19 | .11 |
| MIN | .15 | .15 | .07 | .07 | .05 | .05 | 135 | .15 | .18 | .09 | .11 | .07 |
| AC-FT | 15 | 13 | 13 | 7.3 | 4.4 | 10720 | 48580 | 14990 | 11360 | 11 | 9.0 | 5.2 |

CAL YR 1983 TOTAL 37995.73 MEAN 104 MAX 1430 MIN .06 AC-FT 75360
WTR YR 1984 TOTAL 43220.30 MEAN 118 MAX 1470 MIN .05 AC-FT 85730

BEST COPY AVAILABLE

## 07144910 SOUTH FORK NINNESCAH RIVER NEAR PRATT, KS

LOCATION.--Lat 37 deg 38 min 16 sec, long 98 deg 43 min 14 sec, in NW1/4 NW1/4 SW1/4 sec.2, T.28 S., R.13 W., Pratt County, Hydrologic Unit 11030015, on left bank at downstream side of county highway bridge, 500 ft southwest of sewage disposal facility at Pratt, and 3.3 mi downstream from major left bank tributary, and at mile 135.2.

DRAINAGE AREA.--117 sq mi, approximately.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,815 ft, from topographic map.

REMARKS.--Records fair except for period of backwater from beaver dam June 18 to Sept. 30, which are poor. Flow regulated at times by State Fish Hatchery diversion 0.5 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 327 cu ft per sec June 13, 1984, gage height, 7.80 ft; minimum discharge, 1.9 cu ft per sec Aug. 28, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 327 cu ft per sec June 13, gage height, 7.80 ft; minimum discharge, 3.5 cu ft per sec Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.9 | 12 | 11 | 9.8 | 9.8 | 8.6 | 17 | 54 | 11 | 6.9 | 5.4 | 4.3 |
| 2 | 5.8 | 11 | 11 | 11 | 9.9 | 8.6 | 22 | 31 | 11 | 7.4 | 5.2 | 4.3 |
| 3 | 5.8 | 11 | 11 | 12 | 9.7 | 8.8 | 19 | 24 | 12 | 7.0 | 5.1 | 4.3 |
| 4 | 5.9 | 11 | 12 | 12 | 9.7 | 9.0 | 18 | 21 | 21 | 8.2 | 5.1 | 4.3 |
| 5 | 5.6 | 11 | 11 | 12 | 9.7 | 8.8 | 18 | 22 | 13 | 7.8 | 5.1 | 4.4 |
| 6 | 6.3 | 16 | 11 | 13 | 9.7 | 8.8 | 17 | 27 | 12 | 7.0 | 4.8 | 4.4 |
| 7 | 7.4 | 12 | 11 | 13 | 9.9 | 8.8 | 16 | 27 | 12 | 6.3 | 5.3 | 4.3 |
| 8 | 7.4 | 11 | 11 | 13 | 9.9 | 8.6 | 18 | 20 | 11 | 5.8 | 5.8 | 4.3 |
| 9 | 7.4 | 14 | 11 | 13 | 9.9 | 8.5 | 15 | 17 | 11 | 5.6 | 6.3 | 4.3 |
| 10 | 7.4 | 12 | 10 | 13 | 9.9 | 8.4 | 22 | 16 | 11 | 5.7 | 6.8 | 4.4 |
| 11 | 20 | 11 | 10 | 13 | 9.9 | 8.4 | 17 | 16 | 11 | 6.8 | 6.5 | 4.3 |
| 12 | 9.4 | 11 | 10 | 12 | 9.9 | 9.0 | 15 | 15 | 11 | 5.4 | 6.7 | 4.4 |
| 13 | 7.8 | 11 | 10 | 12 | 10 | 9.0 | 14 | 15 | 29 | 6.5 | 5.7 | 5.4 |
| 14 | 8.0 | 11 | 10 | 12 | 10 | 9.0 | 14 | 14 | 130 | 6.3 | 4.4 | 4.3 |
| 15 | 8.0 | 11 | 10 | 11 | 10 | 8.9 | 14 | 14 | 58 | 6.5 | 4.3 | 4.1 |
| 16 | 15 | 11 | 9.6 | 10 | 9.4 | 33 | 13 | 14 | 33 | 6.8 | 4.6 | 4.1 |
| 17 | 13 | 11 | 9.3 | 9.3 | 8.7 | 24 | 13 | 14 | 21 | 7.2 | 4.3 | 4.7 |
| 18 | 11 | 11 | 8.8 | 9.2 | 9.4 | 36 | 13 | 13 | 19 | 5.6 | 4.4 | 4.0 |
| 19 | 11 | 11 | 8.4 | 9.2 | 8.8 | 34 | 13 | 14 | 12 | 5.6 | 4.3 | 3.8 |
| 20 | 11 | 11 | 8.0 | 9.1 | 8.8 | 32 | 15 | 13 | 10 | 5.9 | 6.0 | 3.9 |
| 21 | 16 | 10 | 8.0 | 9.2 | 8.7 | 27 | 15 | 13 | 9.9 | 5.6 | 4.7 | 3.8 |
| 22 | 11 | 10 | 8.0 | 9.3 | 8.6 | 22 | 15 | 13 | 9.6 | 5.4 | 4.6 | 4.3 |
| 23 | 10 | 10 | 7.8 | 9.4 | 8.6 | 31 | 14 | 13 | 9.0 | 5.6 | 4.4 | 4.3 |
| 24 | 10 | 11 | 7.6 | 9.3 | 8.6 | 39 | 13 | 12 | 9.0 | 5.6 | 4.4 | 3.8 |
| 25 | 10 | 11 | 8.0 | 9.7 | 8.6 | 65 | 13 | 12 | 8.4 | 5.8 | 4.3 | 3.5 |
| 26 | 10 | 11 | 8.4 | 9.9 | 8.6 | 38 | 13 | 12 | 8.6 | 5.6 | 4.0 | 3.6 |
| 27 | 10 | 11 | 8.5 | 9.9 | 8.6 | 25 | 12 | 11 | 8.8 | 5.6 | 4.6 | 4.0 |
| 28 | 10 | 11 | 8.6 | 10 | 8.6 | 21 | 12 | 12 | 8.4 | 5.8 | 4.4 | 4.6 |
| 29 | 10 | 11 | 8.6 | 10 | 8.6 | 19 | 133 | 12 | 7.5 | 5.8 | 4.3 | 4.5 |
| 30 | 10 | 11 | 8.6 | 9.9 | --- | 17 | 165 | 11 | 7.0 | 5.5 | 4.3 | 4.4 |
| 31 | 10 | --- | 8.9 | 9.9 | --- | 19 | --- | 11 | --- | 5.2 | 4.3 | --- |
| TOTAL | 296.1 | 338 | 295.1 | 335.1 | 270.5 | 613.2 | 728 | 533 | 545.2 | 191.8 | 154.4 | 127.1 |
| MEAN | 9.55 | 11.3 | 9.52 | 10.8 | 9.33 | 19.8 | 24.3 | 17.2 | 18.2 | 6.19 | 4.98 | 4.24 |
| MAX | 20 | 16 | 12 | 13 | 10 | 65 | 165 | 54 | 130 | 8.2 | 6.8 | 5.4 |
| MIN | 5.6 | 10 | 7.6 | 9.1 | 8.6 | 8.4 | 12 | 11 | 7.0 | 5.2 | 4.0 | 3.5 |
| AC-FT | 587 | 670 | 585 | 665 | 537 | 1220 | 1440 | 1060 | 1080 | 380 | 306 | 252 |

CAL YR 1983 TOTAL 4408.1 MEAN 12.1 MAX 155 MIN 2.3 AC-FT 8740
WTR YR 1984 TOTAL 4427.5 MEAN 12.1 MAX 165 MIN 3.5 AC-FT 8780

## 07144910 SOUTH FORK NINNESCAH RIVER NEAR PRATT, KS--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| SEP | | | | | |
| 24... | 13:50 | 3.9 | 475 | 7.7 | 20.0 |

### CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|
| DEC | | | |
| 15... | 21 | 43 | 340 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| APR | | | | |
| 13... | 08:00 | 14 | 84 | 3.2 |
| MAY | | | | |
| 09... | 15:40 | 17 | 113 | 5.2 |

### PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | SEDI-MENT, SUS-PENDED (MG/L) | BED MAT. FALL DIAM. % FINER THAN .125 MM | BED MAT. FALL DIAM. % FINER THAN .250 MM | BED MAT. FALL DIAM. % FINER THAN .500 MM | BED MAT. FALL DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM |
|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | |
| 09... | 15:40 | 113 | 0 | 2 | 16 | 49 | 67 | 87 | 94 | 100 |

## 07145200 SOUTH FORK NINNESCAH RIVER NEAR MURDOCK, KS

LOCATION.--Lat 37 deg 33 min 51 sec, long 97 deg 51 min 10 sec, in SW1/4 SW1/4 SE1/4 sec.34, T.28 S., R.5 W., Kingman County, Hydrologic Unit 11030015, near right bank on downstream side of pier of county highway bridge, 4.0 mi southeast of Murdock, and at mile 68.0.

DRAINAGE AREA.--650 sq mi, of which 107 sq mi is probably noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1950 to September 1959. Annual maximums, water years 1960-64. June 1964 to current year.

REVISED RECORDS.--WSP 1561: 1957(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,357.81 ft National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Mar. 30, 1951, nonrecording gage, Mar. 30, 1951, to Sept. 30, 1959, water-stage recorder, and Oct. 1, 1959, to June 3, 1964, crest-stage gage, at same site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--29 years (water years 1951-59, 1965-84), 203 cu ft per sec, 147,100 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,700 cu ft per sec Oct. 31, 1979, gage height, 12.84 ft; minimum discharge, 5.0 cu ft per sec Aug. 5, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 18 | 2400 | 2,160 | 6.91 | Mar. 24 | 0700 | 2,580 | 7.15 |
| Mar. 21 | 2400 | 2,900 | 7.32 | Apr. 7 | 2200 | *3,310 | 7.52 |

Minimum discharge, 20 cu ft per sec Aug. 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 78 | 123 | 148 | 110 | 172 | 175 | 352 | 794 | 124 | 100 | 65 | 35 |
| 2 | 78 | 125 | 139 | 120 | 164 | 175 | 380 | 736 | 115 | 98 | 63 | 26 |
| 3 | 78 | 125 | 144 | 140 | 155 | 174 | 522 | 594 | 113 | 99 | 63 | 28 |
| 4 | 78 | 125 | 150 | 150 | 155 | 239 | 518 | 424 | 118 | 94 | 62 | 28 |
| 5 | 78 | 125 | 157 | 160 | 155 | 211 | 431 | 337 | 120 | 94 | 63 | 27 |
| 6 | 78 | 128 | 163 | 170 | 150 | 192 | 353 | 318 | 116 | 95 | 64 | 27 |
| 7 | 85 | 156 | 161 | 180 | 145 | 181 | 969 | 314 | 111 | 95 | 62 | 24 |
| 8 | 89 | 162 | 157 | 200 | 145 | 175 | 1430 | 304 | 113 | 97 | 58 | 22 |
| 9 | 87 | 179 | 158 | 200 | 155 | 162 | 591 | 295 | 184 | 97 | 58 | 21 |
| 10 | 88 | 187 | 158 | 190 | 170 | 160 | 512 | 280 | 151 | 96 | 58 | 21 |
| 11 | 109 | 181 | 160 | 180 | 175 | 158 | 571 | 251 | 138 | 92 | 61 | 22 |
| 12 | 125 | 166 | 162 | 170 | 172 | 170 | 555 | 236 | 127 | 92 | 62 | 22 |
| 13 | 120 | 162 | 158 | 160 | 170 | 189 | 409 | 216 | 120 | 92 | 64 | 21 |
| 14 | 110 | 158 | 160 | 155 | 163 | 186 | 350 | 190 | 125 | 93 | 59 | 20 |
| 15 | 105 | 150 | 123 | 150 | 158 | 183 | 314 | 190 | 149 | 84 | 56 | 20 |
| 16 | 135 | 141 | 120 | 140 | 160 | 197 | 295 | 179 | 167 | 82 | 53 | 21 |
| 17 | 144 | 136 | 115 | 130 | 163 | 858 | 264 | 172 | 175 | 83 | 53 | 30 |
| 18 | 148 | 135 | 110 | 125 | 167 | 1030 | 249 | 167 | 164 | 83 | 52 | 40 |
| 19 | 129 | 135 | 107 | 120 | 175 | 1250 | 239 | 158 | 154 | 83 | 49 | 56 |
| 20 | 145 | 131 | 102 | 130 | 173 | 613 | 305 | 157 | 144 | 83 | 45 | 55 |
| 21 | 206 | 125 | 100 | 140 | 165 | 1570 | 508 | 160 | 143 | 79 | 49 | 50 |
| 22 | 222 | 121 | 95 | 150 | 165 | 1290 | 353 | 165 | 136 | 78 | 43 | 47 |
| 23 | 173 | 118 | 95 | 160 | 167 | 1460 | 296 | 159 | 120 | 76 | 41 | 44 |
| 24 | 151 | 111 | 100 | 170 | 165 | 2030 | 256 | 159 | 125 | 74 | 39 | 47 |
| 25 | 138 | 111 | 105 | 190 | 161 | 1310 | 241 | 144 | 124 | 74 | 37 | 50 |
| 26 | 127 | 118 | 110 | 210 | 169 | 871 | 227 | 132 | 121 | 74 | 35 | 51 |
| 27 | 123 | 196 | 120 | 230 | 187 | 647 | 232 | 128 | 116 | 71 | 35 | 77 |
| 28 | 120 | 193 | 115 | 250 | 187 | 581 | 268 | 140 | 114 | 67 | 34 | 88 |
| 29 | 116 | 155 | 105 | 270 | 175 | 525 | 364 | 146 | 111 | 67 | 33 | 93 |
| 30 | 114 | 160 | 100 | 230 | --- | 408 | 1010 | 133 | 107 | 66 | 35 | 101 |
| 31 | 115 | --- | 100 | 192 | --- | 339 | --- | 131 | --- | 66 | 37 | --- |
| TOTAL | 3692 | 4338 | 3997 | 5272 | 4783 | 17711 | 13364 | 7909 | 3945 | 2624 | 1588 | 1214 |
| MEAN | 119 | 145 | 129 | 170 | 165 | 571 | 445 | 255 | 132 | 84.6 | 51.2 | 40.5 |
| MAX | 222 | 196 | 163 | 270 | 187 | 2030 | 1430 | 794 | 184 | 100 | 65 | 101 |
| MIN | 78 | 111 | 95 | 110 | 145 | 158 | 227 | 128 | 107 | 66 | 33 | 20 |
| AC-FT | 7320 | 8600 | 7930 | 10460 | 9490 | 35130 | 26510 | 15690 | 7820 | 5200 | 3150 | 2410 |

CAL YR 1983 TOTAL 65226 MEAN 179 MAX 1540 MIN 35 AC-FT 129400
WTR YR 1984 TOTAL 70437 MEAN 192 MAX 2030 MIN 20 AC-FT 139700

## 07145200 SOUTH FORK NINNESCAH RIVER NEAR MURDOCK, KS--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

REMARKS.--Sediment samples collected only at selected flow conditions.

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| DEC | | | | |
| 07... | 10:30 | 158 | 86 | 37 |
| FEB | | | | |
| 22... | 14:00 | 164 | 51 | 23 |
| APR | | | | |
| 11... | 12:25 | 560 | 193 | 292 |
| MAY | | | | |
| 09... | 09:10 | 299 | 110 | 89 |
| JUN | | | | |
| 27... | 09:45 | 111 | 312 | 94 |
| SEP | | | | |
| 25... | 09:40 | 52 | 19 | 2.7 |

### PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | SEDI-MENT, SUS-PENDED (MG/L) | BED MAT. FALL DIAM. % FINER THAN .062 MM | BED MAT. FALL DIAM. % FINER THAN .125 MM | BED MAT. FALL DIAM. % FINER THAN .250 MM | BED MAT. FALL DIAM. % FINER THAN .500 MM | BED MAT. FALL DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 07... | 10:30 | 86 | 0 | 1 | 12 | 44 | 70 | 90 | 99 | 100 | -- |
| MAY | | | | | | | | | | | |
| 09... | 09:10 | 110 | -- | 0 | 4 | 54 | 92 | 96 | 99 | 99 | 100 |

## 07145500 NINNESCAH RIVER NEAR PECK, KS

LOCATION.--Lat 37 deg 27 min 26 sec, long 97 deg 25 min 20 sec, in NW1/4 SW1/4 NW1/4 sec.10, T.30 S., R.1 W., Sumner County, Hydrologic Unit 11030016, at downstream side of highway bridge, 3.0 mi southwest of Peck, and at mile 31.6.

DRAINAGE AREA.--2,129 sq mi, of which 344 sq mi is probably noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Prior to April 1938 monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1211: 1944(M). WSP 1241: 1944, 1945(M), 1947-48(M).

GAGE.--Water-stage recorder. Datum of gage is 1,222.38 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Feb. 4, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Flow partially regulated by Cheney Reservoir since 1964 (see sta 07144790).

AVERAGE DISCHARGE.--47 years, 507 cu ft per sec, 367,300 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,200 cu ft per sec May 17, 1957, gage height, 21.85 ft; minimum daily, 0.20 cu ft per sec Sept. 3, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 9, 1923, reached a stage of 26.4 ft from floodmark, discharge, about 70,000 cu ft per sec.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,800 cu ft per sec Mar. 24, gage height, 16.22 ft; minimum discharge, 23 cu ft per sec Sept. 12-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 74 | 152 | 218 | 200 | 284 | 209 | 2190 | 2600 | 259 | 216 | 52 | 31 |
| 2 | 72 | 154 | 212 | 215 | 250 | 206 | 2370 | 2240 | 245 | 186 | 51 | 34 |
| 3 | 68 | 161 | 213 | 230 | 232 | 222 | 3000 | 1960 | 235 | 170 | 49 | 34 |
| 4 | 72 | 158 | 221 | 250 | 223 | 724 | 2590 | 1750 | 241 | 157 | 49 | 32 |
| 5 | 69 | 154 | 226 | 265 | 218 | 376 | 2360 | 1680 | 258 | 145 | 48 | 31 |
| 6 | 70 | 153 | 226 | 280 | 206 | 296 | 2250 | 1670 | 251 | 138 | 45 | 30 |
| 7 | 79 | 161 | 219 | 280 | 206 | 265 | 2940 | 1710 | 240 | 131 | 47 | 26 |
| 8 | 89 | 199 | 215 | 280 | 198 | 246 | 7980 | 1680 | 232 | 124 | 45 | 25 |
| 9 | 96 | 210 | 208 | 275 | 204 | 232 | 3100 | 1250 | 275 | 117 | 49 | 25 |
| 10 | 98 | 210 | 204 | 270 | 222 | 223 | 2540 | 975 | 326 | 105 | 48 | 26 |
| 11 | 106 | 223 | 202 | 260 | 238 | 217 | 3280 | 632 | 258 | 107 | 50 | 26 |
| 12 | 113 | 203 | 198 | 259 | 229 | 231 | 3730 | 438 | 225 | 106 | 51 | 24 |
| 13 | 121 | 190 | 195 | 245 | 217 | 251 | 2190 | 443 | 220 | 102 | 51 | 23 |
| 14 | 112 | 183 | 191 | 230 | 207 | 273 | 1920 | 413 | 224 | 95 | 52 | 23 |
| 15 | 104 | 177 | 164 | 210 | 197 | 266 | 1800 | 391 | 335 | 89 | 49 | 24 |
| 16 | 145 | 171 | 135 | 200 | 192 | 331 | 1730 | 373 | 565 | 93 | 45 | 24 |
| 17 | 486 | 167 | 119 | 185 | 193 | 1810 | 1660 | 354 | 753 | 104 | 41 | 41 |
| 18 | 286 | 165 | 110 | 180 | 198 | 3020 | 1620 | 335 | 587 | 100 | 39 | 63 |
| 19 | 214 | 164 | 108 | 175 | 200 | 6190 | 1750 | 330 | 515 | 106 | 38 | 67 |
| 20 | 263 | 164 | 105 | 180 | 200 | 2420 | 1870 | 505 | 499 | 90 | 38 | 64 |
| 21 | 432 | 163 | 105 | 200 | 195 | 3700 | 2020 | 477 | 600 | 76 | 38 | 57 |
| 22 | 410 | 161 | 106 | 225 | 192 | 4470 | 1310 | 376 | 707 | 70 | 49 | 52 |
| 23 | 309 | 165 | 111 | 255 | 189 | 5220 | 1000 | 353 | 703 | 67 | 48 | 49 |
| 24 | 231 | 169 | 118 | 305 | 185 | 11700 | 1200 | 330 | 749 | 68 | 47 | 48 |
| 25 | 190 | 169 | 124 | 345 | 185 | 4630 | 1340 | 317 | 862 | 68 | 44 | 43 |
| 26 | 169 | 172 | 135 | 368 | 200 | 2910 | 1320 | 299 | 754 | 66 | 44 | 41 |
| 27 | 158 | 240 | 156 | 405 | 215 | 2260 | 1350 | 311 | 712 | 64 | 42 | 48 |
| 28 | 149 | 316 | 170 | 483 | 222 | 2630 | 1340 | 432 | 561 | 61 | 40 | 67 |
| 29 | 144 | 273 | 179 | 520 | 220 | 2240 | 1120 | 370 | 440 | 58 | 38 | 77 |
| 30 | 160 | 234 | 163 | 451 | --- | 1930 | 2200 | 299 | 338 | 55 | 47 | 77 |
| 31 | 160 | --- | 190 | 383 | --- | 2050 | --- | 274 | --- | 52 | 37 | --- |
| TOTAL | 5249 | 5581 | 5246 | 8609 | 6117 | 61748 | 67070 | 25547 | 13174 | 3186 | 1411 | 1232 |
| MEAN | 169 | 186 | 169 | 278 | 211 | 1992 | 2236 | 824 | 439 | 103 | 45.5 | 41.1 |
| MAX | 486 | 316 | 226 | 520 | 284 | 11700 | 7980 | 2600 | 862 | 216 | 52 | 77 |
| MIN | 68 | 152 | 105 | 175 | 185 | 206 | 1000 | 274 | 220 | 52 | 37 | 23 |
| AC-FT | 10410 | 11070 | 10410 | 17080 | 12130 | 122500 | 133000 | 50670 | 26130 | 6320 | 2800 | 2440 |

CAL YR 1983 TOTAL 199324 MEAN 546 MAX 8280 MIN 42 AC-FT 395400
WTR YR 1984 TOTAL 204170 MEAN 558 MAX 11700 MIN 23 AC-FT 405000

## 07145500 NINNESCAH RIVER NEAR PECK, KS--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV | | | | | |
| 10... | 09:30 | 212 | 1140 | 8.2 | 4.5 |
| JAN | | | | | |
| 06... | 14:00 | 279 | 1090 | 8.1 | 2.0 |
| FEB | | | | | |
| 08... | 16:00 | 197 | 1120 | 8.4 | 5.0 |
| MAR | | | | | |
| 15... | 12:15 | 256 | 1070 | 8.1 | 4.5 |
| APR | | | | | |
| 26... | 17:15 | 1270 | 851 | 8.4 | 21.0 |
| JUN | | | | | |
| 14... | 15:00 | 217 | 881 | 8.5 | 31.0 |
| JUL | | | | | |
| 18... | 14:40 | 103 | 1150 | 8.4 | 30.5 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| OCT | | | | |
| 05... | 11:35 | 68 | 42 | 7.7 |
| NOV | | | | |
| 10... | 09:30 | 212 | 68 | 39 |
| JAN | | | | |
| 06... | 14:00 | 279 | 36 | 26 |
| FEB | | | | |
| 08... | 16:00 | 197 | 42 | 22 |
| MAR | | | | |
| 15... | 12:15 | 256 | 110 | 76 |
| JUN | | | | |
| 14... | 15:00 | 217 | 150 | 88 |
| JUL | | | | |
| 18... | 14:40 | 103 | 41 | 11 |
| AUG | | | | |
| 29... | 14:05 | 40 | 33 | 3.6 |

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## 07145700 SLATE CREEK AT WELLINGTON, KS

LOCATION.--Lat 37 deg 15 min 00 sec, long 97 deg 24 min 12 sec, in SE1/4 NE1/4 SE1/4 sec.22, T.32 S., R.1 W., Sumner County, Hydrologic Unit 11030013, on right bank at upstream side of U.S. Highway 81 bridge, at southern edge of Wellington.

DRAINAGE AREA.--154 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1954-66. Annual maximum, water years 1960-69. April 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,157.24 ft National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1969, crest-stage gage at present site and at datum 3.0 ft higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--15 years (water years 1970-84), 62.3 cu ft per sec, 45,140 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,500 cu ft per sec June 17, 1975, gage height, 25.82 ft, from rating curve extended above 18,000 cu ft per sec; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 17 | 2000 | 1,230 | 14.40 | Apr. 8 | 1400 | 3,330 | 20.14 |
| Mar. 19 | 1400 | 3,040 | 19.68 | Apr. 11 | 0800 | 1,450 | 15.36 |
| Mar. 21 | 1400 | 1,880 | 17.07 | Apr. 12 | 1700 | 1,610 | 16.03 |
| Mar. 24 | 0400 | *4,960 | 21.68 | June 9 | 0500 | 3,570 | 20.49 |
| Mar. 28 | 1900 | 1,250 | 14.47 | June 23 | 2300 | 1,700 | 16.39 |

No flow part of Sept. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .53 | 4.1 | 9.1 | 10 | 13 | 10 | 105 | 37 | 10 | 8.5 | 1.3 | .12 |
| 2 | .56 | 4.1 | 8.3 | 8.3 | 11 | 8.8 | 129 | 33 | 10 | 7.8 | 1.3 | .44 |
| 3 | .59 | 3.9 | 11 | 8.0 | 9.9 | 8.8 | 325 | 40 | 9.6 | 7.2 | 1.2 | .24 |
| 4 | .64 | 3.6 | 12 | 9.0 | 9.4 | 127 | 117 | 39 | 9.5 | 6.5 | 1.1 | .08 |
| 5 | .62 | 3.8 | 11 | 11 | 8.8 | 149 | 59 | 31 | 9.4 | 5.9 | .88 | .11 |
| 6 | .76 | 5.0 | 11 | 20 | 7.4 | 29 | 46 | 30 | 9.1 | 7.2 | .59 | .07 |
| 7 | 3.0 | 4.6 | 11 | 39 | 8.2 | 17 | 228 | 29 | 8.7 | 5.6 | 1.2 | .01 |
| 8 | .98 | 4.8 | 9.8 | 30 | 7.7 | 14 | 2680 | 26 | 93 | 5.0 | 1.3 | .08 |
| 9 | .84 | 6.7 | 8.5 | 26 | 9.5 | 12 | 1070 | 23 | 1830 | 4.4 | 1.7 | .19 |
| 10 | .91 | 5.2 | 8.3 | 25 | 9.8 | 11 | 533 | 22 | 58 | 3.8 | 4.8 | .18 |
| 11 | 2.8 | 5.3 | 8.1 | 21 | 12 | 11 | 1130 | 20 | 23 | 4.3 | 4.1 | .13 |
| 12 | 1.2 | 7.5 | 7.9 | 12 | 12 | 16 | 1280 | 19 | 16 | 4.3 | 2.2 | .10 |
| 13 | 2.0 | 6.7 | 8.0 | 12 | 9.9 | 15 | 417 | 18 | 13 | 3.9 | 1.1 | .16 |
| 14 | 2.2 | 5.6 | 7.7 | 7.7 | 8.9 | 18 | 102 | 16 | 12 | 3.5 | .79 | .20 |
| 15 | 2.0 | 4.9 | 6.4 | 8.8 | 8.3 | 15 | 67 | 16 | 11 | 2.9 | .60 | .22 |
| 16 | 4.1 | 4.8 | 6.2 | 8.0 | 7.9 | 25 | 56 | 16 | 10 | 3.8 | .45 | .22 |
| 17 | 4.0 | 4.8 | 5.9 | 7.5 | 7.6 | 692 | 49 | 15 | 14 | 3.8 | .38 | 2.2 |
| 18 | 10 | 4.9 | 5.6 | 7.7 | 8.0 | 857 | 43 | 15 | 9.1 | 3.5 | .29 | .51 |
| 19 | 18 | 4.7 | 5.5 | 7.5 | 7.4 | 2300 | 40 | 15 | 7.7 | 3.1 | .25 | .31 |
| 20 | 17 | 5.0 | 5.6 | 7.4 | 7.2 | 628 | 48 | 19 | 7.5 | 2.5 | .21 | .22 |
| 21 | 56 | 5.8 | 5.5 | 7.9 | 7.2 | 1580 | 151 | 18 | 7.2 | 2.2 | .19 | .22 |
| 22 | 105 | 6.8 | 5.4 | 8.3 | 7.1 | 446 | 81 | 15 | 11 | 1.8 | 1.2 | .24 |
| 23 | 34 | 8.2 | 5.4 | 8.4 | 7.0 | 1690 | 50 | 14 | 341 | 1.7 | .25 | .27 |
| 24 | 13 | 6.7 | 5.5 | 8.8 | 6.8 | 4070 | 41 | 13 | 766 | 1.5 | .15 | .27 |
| 25 | 7.3 | 6.7 | 5.8 | 8.9 | 6.8 | 815 | 35 | 12 | 109 | 1.5 | .15 | .21 |
| 26 | 5.4 | 10 | 6.8 | 9.5 | 11 | 349 | 34 | 11 | 33 | 1.5 | .19 | .22 |
| 27 | 4.5 | 36 | 8.0 | 11 | 9.4 | 503 | 142 | 13 | 19 | 1.7 | .13 | .43 |
| 28 | 4.2 | 25 | 8.9 | 12 | 9.9 | 847 | 66 | 18 | 15 | 1.6 | .16 | .36 |
| 29 | 3.5 | 22 | 9.0 | 14 | 12 | 436 | 36 | 18 | 14 | 1.6 | .11 | .25 |
| 30 | 3.6 | 12 | 9.0 | 14 | --- | 111 | 48 | 13 | 12 | 1.4 | .08 | .26 |
| 31 | 3.6 | --- | 9.2 | 12 | --- | 90 | --- | 11 | --- | 1.4 | .08 | --- |
| TOTAL | 312.93 | 239.2 | 245.4 | 400.7 | 261.1 | 15900.6 | 9208 | 635 | 3497.8 | 115.4 | 28.43 | 8.52 |
| MEAN | 10.1 | 7.97 | 7.92 | 12.9 | 9.00 | 513 | 307 | 20.5 | 117 | 3.72 | .92 | .28 |
| MAX | 105 | 36 | 12 | 39 | 13 | 4070 | 2680 | 40 | 1830 | 8.5 | 4.8 | 2.2 |
| MIN | .53 | 3.6 | 5.4 | 7.4 | 6.8 | 8.8 | 34 | 11 | 7.2 | 1.4 | .08 | .01 |
| AC-FT | 620 | 474 | 487 | 795 | 518 | 31540 | 18260 | 1260 | 6940 | 229 | 56 | 17 |

CAL YR 1983 TOTAL 36847.75 MEAN 101 MAX 4910 MIN .01 AC-FT 73090
WTR YR 1984 TOTAL 30852.98 MEAN 84.3 MAX 4070 MIN .01 AC-FT 61200

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## 07145700 SLATE CREEK AT WELLINGTON, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT | | | | | |
| 12... | 08:55 | 1.1 | 1700 | 7.7 | 15.0 |
| NOV | | | | | |
| 09... | 16:10 | 7.4 | 761 | 7.9 | 11.0 |
| JAN | | | | | |
| 06... | 09:40 | 18 | 1400 | 7.9 | 0.0 |
| FEB | | | | | |
| 08... | 12:20 | 7.6 | 1090 | 8.3 | 4.5 |
| MAR | | | | | |
| 15... | 08:10 | 16 | 1190 | 8.0 | 11.5 |
| APR | | | | | |
| 26... | 13:50 | 32 | 1260 | 8.2 | 20.5 |
| JUN | | | | | |
| 14... | 08:30 | 13 | 940 | 7.9 | 24.0 |
| JUL | | | | | |
| 18... | 11:40 | 3.6 | 1210 | 7.4 | 25.0 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| OCT | | | | |
| 12... | 08:55 | 1.1 | 83 | 0.25 |
| NOV | | | | |
| 09... | 16:10 | 7.4 | 52 | 1.0 |
| JAN | | | | |
| 06... | 09:40 | 18 | 69 | 3.4 |
| FEB | | | | |
| 08... | 12:20 | 7.6 | 7 | 0.14 |
| MAR | | | | |
| 15... | 08:10 | 16 | 79 | 3.4 |
| APR | | | | |
| 26... | 13:50 | 32 | 51 | 4.4 |
| JUN | | | | |
| 14... | 08:30 | 13 | 88 | 3.1 |
| JUL | | | | |
| 18... | 11:40 | 3.6 | 64 | 0.62 |

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## 07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS
(National stream-quality accounting network station)

LOCATION.--Lat 37 deg 03 min 23 sec, long 97 deg 03 min 32 sec, in NE1/4 NE1/4 NE1/4 sec.35, T.34 S., R.3 E., Cowley County, Hydrologic Unit 11030013, on left bank near downstream side of bridge on U.S. Highway 166, 0.1 mi downstream from railway bridge, 0.5 mi west of Arkansas City, 5.4 mi upstream from Walnut River and at mile 701.4.

DRAINAGE AREA.--43,713 sq mi, of which 7,607 sq mi is probably noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1902 to September 1906, September 1921 to current year. Published as "near Arkansas City" 1903-04. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1311: 1905. WSP 1341: 1922-23, 1927, 1929, 1931, 1933, 1940, 1945-46(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,050.04 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Sept. 23, 1902, to July 31, 1906, nonrecording gage at site 0.5 mi upstream at datum 9.5 ft higher. Sept. 10, 1921, to Sept 27, 1929, nonrecording gage and Sept. 28, 1929, to Aug. 28, 1956, water-stage recorder at site 0.5 mi upstream at datum 2.97 ft higher than present datum.

REMARKS.--Records good except those for winter period, which are poor. Flow moderately regulated since 1943 by John Martin Reservoir (see sta 07130000) and since 1964 by Cheney Reservoir (see sta 07144790). Diversions above station for irrigation.

AVERAGE DISCHARGE.--67 years, 1,809 cu ft per sec, 1,311,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 cu ft per sec June 10, 1923, gage height, 25.46 ft, from floodmarks, site and datum then in use, from rating curve extended above 8,000 cu ft per sec on basis of field estimate, maximum gage height, 25.55 ft May 18, 1957; minimum discharge, 1.0 cu ft per sec Oct. 9, 1921, result of diversion by local power canal.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 20 | 0900 | 22,500 | 17.91 | Apr. 9 | 1500 | 23,800 | 18.20 |
| Mar. 25 | 1400 | *37,300 | 20.71 | | | | |

Minimum daily discharge, 129 cu ft per sec Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 270 | 568 | 712 | 560 | 843 | 591 | 4860 | 6000 | 1130 | 1100 | 319 | 214 |
| 2 | 265 | 546 | 684 | 600 | 774 | 574 | 4400 | 8220 | 1090 | 959 | 301 | 214 |
| 3 | 260 | 547 | 687 | 700 | 736 | 583 | 4830 | 8240 | 1060 | 909 | 293 | 212 |
| 4 | 255 | 529 | 707 | 800 | 697 | 639 | 5630 | 7220 | 1040 | 869 | 310 | 221 |
| 5 | 250 | 529 | 756 | 900 | 649 | 1620 | 5510 | 5650 | 1020 | 808 | 307 | 198 |
| 6 | 250 | 534 | 695 | 1000 | 630 | 1280 | 5930 | 4780 | 1020 | 766 | 302 | 188 |
| 7 | 300 | 525 | 689 | 1100 | 588 | 871 | 6390 | 4000 | 1020 | 732 | 291 | 172 |
| 8 | 700 | 530 | 668 | 1000 | 578 | 721 | 12300 | 3600 | 1040 | 696 | 335 | 159 |
| 9 | 450 | 543 | 658 | 939 | 604 | 647 | 22000 | 3360 | 3720 | 655 | 322 | 164 |
| 10 | 350 | 545 | 651 | 852 | 618 | 606 | 15100 | 2960 | 4820 | 610 | 319 | 158 |
| 11 | 310 | 540 | 643 | 823 | 646 | 578 | 12500 | 2530 | 2600 | 583 | 319 | 151 |
| 12 | 352 | 540 | 626 | 755 | 612 | 606 | 11900 | 2240 | 1560 | 584 | 293 | 148 |
| 13 | 411 | 550 | 626 | 632 | 591 | 649 | 10700 | 1990 | 1440 | 563 | 283 | 145 |
| 14 | 356 | 550 | 611 | 564 | 578 | 706 | 7010 | 1830 | 1350 | 549 | 281 | 137 |
| 15 | 352 | 550 | 600 | 550 | 559 | 680 | 5400 | 2000 | 1210 | 532 | 275 | 135 |
| 16 | 342 | 550 | 550 | 530 | 537 | 684 | 4340 | 1960 | 1240 | 533 | 267 | 141 |
| 17 | 376 | 550 | 500 | 510 | 521 | 1200 | 3790 | 1720 | 1550 | 516 | 254 | 158 |
| 18 | 484 | 550 | 480 | 500 | 528 | 4630 | 3430 | 1550 | 1540 | 520 | 244 | 353 |
| 19 | 750 | 550 | 450 | 500 | 533 | 12200 | 3250 | 1480 | 1490 | 500 | 238 | 785 |
| 20 | 720 | 550 | 450 | 500 | 538 | 20000 | 3190 | 1580 | 1320 | 490 | 238 | 411 |
| 21 | 1210 | 550 | 460 | 520 | 522 | 13600 | 3920 | 1950 | 1260 | 484 | 244 | 327 |
| 22 | 1030 | 580 | 470 | 540 | 495 | 14400 | 4320 | 1660 | 1360 | 464 | 356 | 277 |
| 23 | 970 | 700 | 480 | 550 | 497 | 19500 | 4100 | 1470 | 1540 | 433 | 333 | 246 |
| 24 | 864 | 700 | 490 | 560 | 505 | 29900 | 2980 | 1420 | 2770 | 414 | 383 | 218 |
| 25 | 729 | 720 | 500 | 580 | 498 | 35200 | 2940 | 1340 | 2760 | 408 | 291 | 191 |
| 26 | 664 | 750 | 510 | 600 | 568 | 21100 | 2940 | 1290 | 1760 | 395 | 269 | 182 |
| 27 | 634 | 800 | 520 | 620 | 686 | 13400 | 2870 | 1260 | 1560 | 383 | 251 | 187 |
| 28 | 598 | 850 | 540 | 640 | 692 | 12000 | 2970 | 1350 | 1440 | 370 | 246 | 196 |
| 29 | 567 | 900 | 550 | 680 | 621 | 10300 | 5440 | 1350 | 1420 | 353 | 237 | 213 |
| 30 | 549 | 800 | 550 | 709 | --- | 6770 | 6070 | 1310 | 1240 | 351 | 230 | 201 |
| 31 | 581 | --- | 550 | 783 | --- | 5100 | --- | 1200 | --- | 345 | 221 | --- |
| TOTAL | 16199 | 18226 | 18063 | 21097 | 17444 | 231335 | 191010 | 88490 | 49370 | 17874 | 8852 | 6702 |
| MEAN | 523 | 608 | 583 | 681 | 602 | 7462 | 6367 | 2855 | 1646 | 577 | 286 | 223 |
| MAX | 1210 | 900 | 756 | 1100 | 843 | 35200 | 22000 | 8240 | 4820 | 1100 | 383 | 785 |
| MIN | 250 | 525 | 450 | 500 | 495 | 574 | 2870 | 1200 | 1020 | 345 | 221 | 135 |
| AC-FT | 32130 | 36150 | 35830 | 41850 | 34600 | 458900 | 378900 | 175500 | 97930 | 35450 | 17560 | 13290 |

CAL YR 1983 TOTAL 652805 MEAN 1789 MAX 21500 MIN 250 AC-FT 1295000
WTR YR 1984 TOTAL 684662 MEAN 1871 MAX 35200 MIN 135 AC-FT 1358000

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## 07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS--Continued
(National stream-quality accounting network station)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1951 to September 1981.
WATER TEMPERATURES: October 1951 to September 1981.
SUSPENDED-SEDIMENT DISCHARGE: September 1961 to September 1975.

### CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) | OXYGEN, DISSOLVED (MG/L) | BAROMETRIC PRESSURE (MM OF HG) | COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) | STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | |
| 12... | 12:05 | 337 | 2100 | 8.6 | 15.0 | 12.2 | 735 | 100 | 660 |
| JAN | | | | | | | | | |
| 04... | 15:45 | 1030 | 1750 | 7.8 | 0.0 | 9.2 | 733 | 110 | 930 |
| FEB | | | | | | | | | |
| 07... | 15:50 | 555 | 1610 | 8.2 | 8.0 | -- | -- | -- | -- |
| MAR | | | | | | | | | |
| 14... | 09:35 | 702 | 1660 | 8.0 | 9.0 | 11.8 | 732 | 770 | 1400 |
| APR | | | | | | | | | |
| 25... | 14:15 | 3020 | 1300 | 9.1 | 19.0 | 8.6 | 719 | 3300 | 530 |
| JUN | | | | | | | | | |
| 13... | 09:10 | 1530 | 1530 | 9.3 | 28.0 | 12.1 | 733 | 1300 | 640 |
| JUL | | | | | | | | | |
| 16... | 16:50 | 450 | 2160 | 9.3 | 25.5 | 16.9 | 732 | 260 | 920 |
| 17... | 08:00 | 516 | 2160 | 9.3 | 22.5 | -- | -- | -- | -- |
| AUG | | | | | | | | | |
| 27... | 16:10 | 155 | 2110 | 9.0 | 29.5 | 15.6 | 731 | K40 | 88 |

| DATE | TURBIDITY (NTU) | HARDNESS (MG/L AS CACO3) | HARDNESS NONCARBONATE (MG/L AS CACO3) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY LAB (MG/L AS CACO3) | CARBON DIOXIDE DISSOLVED (MG/L AS CO2) | SULFATE DISSOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 12... | 8.3 | 340 | 336 | 96 | 23 | 300 | 7 | 5.5 | 186 | 0.9 | 160 |
| JAN | | | | | | | | | | | |
| 04... | 2.7 | 370 | 374 | 110 | 24 | 250 | 6 | 5.3 | 219 | 6.7 | 150 |
| MAR | | | | | | | | | | | |
| 14... | 20 | 290 | 295 | 83 | 21 | 230 | 6 | 4.7 | 184 | 3.5 | 150 |
| APR | | | | | | | | | | | |
| 25... | 72 | 280 | 276 | 79 | 19 | 160 | 4 | 6.3 | 184 | 0.3 | 110 |
| JUN | | | | | | | | | | | |
| 13... | 34 | 290 | 287 | 78 | 22 | 230 | 6 | 5.6 | 167 | 0.2 | 130 |
| JUL | | | | | | | | | | | |
| 16... | 37 | 410 | 410 | 100 | 39 | 320 | 7 | 6.4 | 193 | 0.2 | 180 |
| AUG | | | | | | | | | | | |
| 27... | 12 | 360 | 359 | 100 | 26 | 320 | 8 | 7.0 | 211 | 0.5 | 160 |

K Results based on colony count outside the acceptable range (non-ideal colony count).

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### 07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS--Continued
(National stream-quality accounting network station)

### CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | PHOSPHORUS, TOTAL (MG/L AS P) | PHOSPHORUS, DISSOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT<br>12... | 460 | 0.5 | 5.6 | 1390 | 1.9 | 1260 | 1.30 | 1.9 | 1.40 | 1.00 |
| JAN<br>04... | 380 | 0.4 | 14 | 1040 | 1.4 | 2890 | 1.40 | 3.7 | 1.30 | 1.10 |
| MAR<br>14... | 350 | 0.4 | 6.6 | 994 | 1.4 | 1880 | -- | 1.6 | 0.83 | -- |
| APR<br>25... | 260 | 0.5 | 9.6 | 785 | 1.1 | 6400 | 1.40 | 2.4 | 0.51 | 0.33 |
| JUN<br>13... | 360 | 0.4 | 0.5 | 943 | 1.3 | 3900 | <0.10 | 2.5 | 0.65 | 0.24 |
| JUL<br>16... | 500 | 0.5 | 1.1 | 1280 | 1.7 | 1560 | 0.10 | 2.5 | -- | 0.53 |
| AUG<br>27... | 480 | 0.5 | 7.0 | 1260 | 1.7 | 527 | 0.53 | 2.3 | 1.50 | 0.69 |

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | ALUMINUM, DISSOLVED (UG/L AS AL) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, DISSOLVED (UG/L AS BA) | BERYLLIUM, DISSOLVED (UG/L AS BE) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM, DISSOLVED (UG/L AS CR) | COBALT, DISSOLVED (UG/L AS CO) | COPPER, DISSOLVED (UG/L AS CU) | IRON, DISSOLVED (UG/L AS FE) | LEAD, DISSOLVED (UG/L AS PB) | LITHIUM DISSOLVED (UG/L AS LI) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT<br>12... | <10 | 2 | 130 | <0.5 | <1 | <1 | <3 | 3 | 6 | 2 | 37 |
| MAR<br>14... | 10 | 2 | 140 | <0.5 | <1 | <1 | <3 | <1 | 10 | <1 | 28 |
| JUN<br>13... | 50 | 2 | 160 | <1 | 2 | 1 | <3 | 2 | 6 | 3 | 37 |
| AUG<br>27... | 20 | 5 | 130 | 1 | <1 | <1 | <3 | 5 | 4 | <1 | 44 |

| DATE | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY DISSOLVED (UG/L AS HG) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | STRONTIUM, DISSOLVED (UG/L AS SR) | VANADIUM, DISSOLVED (UG/L AS V) | URANIUM NATURAL DISSOLVED (UG/L AS U) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT<br>12... | 4 | 0.2 | <10 | 3 | <1 | <1 | 1500 | <6 | -- | 7 |
| MAR<br>14... | 9 | 0.2 | <10 | 2 | <1 | <1 | 960 | <6 | -- | 15 |
| JUN<br>13... | 2 | <0.1 | <10 | 6 | <1 | <1 | 1100 | 8 | 4.2 | 8 |
| AUG<br>27... | 7 | 0.2 | <10 | 10 | <1 | 1 | 2100 | <6 | -- | 8 |

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### 07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS--Continued
(National stream-quality accounting network station)

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) |
|---|---|---|---|
| OCT | | | |
| 03... | 210 | 20.5 | 2080 |
| 06... | 220 | 17.5 | 2040 |
| 11... | 328 | 17.0 | 1880 |
| 12... | 337 | 15.0 | 2100 |
| 13... | 356 | 18.0 | 1720 |
| 17... | 384 | 17.0 | 1820 |
| 21... | 1290 | 13.5 | 1180 |
| 24... | 830 | 16.0 | 1160 |
| 30... | 488 | 16.0 | 1710 |
| NOV | | | |
| 01... | 528 | 18.5 | 1620 |
| 05... | 520 | 15.0 | 1570 |
| 07... | 504 | 15.0 | 1520 |
| 09... | 559 | 11.0 | 1680 |
| 11... | 640 | 9.0 | 1540 |
| 14... | 592 | 11.0 | 1750 |
| 17... | 576 | 10.0 | 1750 |
| 21... | 544 | 10.0 | 1810 |
| 23... | 620 | 5.0 | 1550 |
| 28... | 900 | 2.5 | 1720 |
| DEC | | | |
| 01... | 890 | 0.0 | 1410 |
| 05... | 860 | 3.5 | 1410 |
| 09... | 760 | 1.0 | 1680 |
| 11... | 710 | 4.0 | 1730 |
| 15... | 730 | 0.0 | 1890 |
| 19... | 650 | 0.0 | 3270 |
| JAN | | | |
| 04... | 1030 | 0.0 | 1750 |
| 05... | 1280 | 0.0 | 1870 |
| 09... | 1180 | 2.5 | 1470 |
| 12... | 1030 | 0.0 | 1570 |
| 16... | 1630 | 0.0 | 1890 |
| 30... | 960 | 2.5 | 1590 |
| FEB | | | |
| 02... | 1070 | 5.0 | 1480 |
| 06... | 880 | 0.0 | 1710 |
| 07... | 555 | 8.0 | 1610 |
| 10... | 860 | 10.0 | 1740 |
| 13... | 840 | 9.5 | 1820 |
| 16... | 750 | 7.0 | 1850 |
| 20... | 780 | 6.0 | 1900 |
| 23... | 700 | 10.0 | 1990 |
| 27... | 900 | 3.5 | 1970 |
| MAR | | | |
| 01... | 800 | 3.5 | 1780 |
| 05... | 2160 | 5.0 | 968 |
| 08... | 984 | 3.0 | 1460 |
| 12... | 850 | 7.5 | 1800 |
| 14... | 702 | 9.0 | 1660 |
| 15... | 870 | 17.0 | 1820 |
| 19... | 10100 | 4.5 | 533 |
| 22... | 14500 | 5.0 | 342 |
| 26... | 22800 | 6.0 | 284 |
| 31... | 6920 | 3.0 | 879 |
| APR | | | |
| 02... | 4120 | 8.5 | 1060 |
| 05... | 5240 | 9.5 | 1020 |
| 09... | 22400 | 10.5 | 433 |
| 12... | 12100 | 14.0 | 587 |
| 16... | 4140 | 11.5 | 1080 |
| 18... | 3160 | 14.5 | 1330 |
| 23... | 4100 | 8.5 | 964 |
| 25... | 3020 | 19.0 | 1300 |
| 26... | 2950 | 17.0 | 1390 |
| 30... | 6080 | 12.5 | 534 |
| MAY | | | |
| 04... | 7050 | 14.0 | 586 |
| 07... | 3820 | 15.0 | 931 |
| 09... | 3300 | 15.5 | 1180 |
| 14... | 1830 | 22.5 | 1730 |
| 17... | 1720 | 19.5 | 1580 |
| 21... | 1950 | 20.0 | 1230 |
| 23... | 1470 | 19.0 | 1640 |
| 29... | 1350 | 22.5 | 1700 |
| JUN | | | |
| 04... | 1040 | 24.0 | 1930 |
| 07... | 1020 | 26.0 | 1880 |
| 11... | 2000 | 26.5 | 1100 |
| 13... | 1530 | 28.0 | 1530 |
| 14... | 1350 | 29.0 | 1700 |
| 18... | 1540 | 24.0 | 1260 |
| 21... | 1260 | 24.0 | 1480 |
| 25... | 3000 | 23.0 | 959 |
| 28... | 1440 | 25.5 | 1300 |
| JUL | | | |
| 01... | 1100 | 27.0 | 1590 |
| 06... | 766 | 28.5 | 1940 |
| 09... | 655 | 30.5 | 2210 |
| 12... | 584 | 31.0 | 2160 |
| 16... | 450 | 25.5 | 2160 |
| 17... | 516 | 22.5 | 2160 |
| 20... | 490 | 29.0 | 2170 |
| 23... | 433 | 28.5 | 2230 |
| 26... | 395 | 29.0 | 2210 |
| 30... | 351 | 22.5 | 2190 |
| AUG | | | |
| 01... | 319 | 31.0 | 2500 |
| 07... | 291 | 24.5 | 2390 |
| 09... | 322 | 31.5 | 2270 |
| 13... | 283 | 23.0 | 2300 |
| 16... | 267 | 24.0 | 2320 |
| 20... | 235 | 23.0 | 2360 |
| 23... | 333 | 22.0 | 2120 |
| 27... | 247 | 22.0 | 2260 |
| 27... | 257 | 29.5 | 2110 |
| 31... | 200 | 24.5 | 2170 |
| SEP | | | |
| 04... | 221 | 18.0 | 2200 |
| 06... | 190 | 18.0 | 2380 |
| 10... | 180 | 18.0 | 2430 |
| 13... | 180 | 27.0 | 2370 |
| 18... | 180 | 14.0 | 2360 |
| 20... | 400 | 18.0 | 1360 |
| 24... | 200 | 21.5 | 2060 |

## 07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS--Continued
(National stream-quality accounting network station)

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|
| OCT | | | | | |
| 12... | 12:05 | 337 | 32 | 29 | 84 |
| NOV | | | | | |
| 09... | 09:35 | 559 | 71 | 107 | 92 |
| JAN | | | | | |
| 04... | 15:45 | 1030 | 5 | 14 | 76 |
| FEB | | | | | |
| 07... | 15:50 | 555 | 44 | 66 | 78 |
| MAR | | | | | |
| 14... | 09:35 | 702 | 55 | 104 | 90 |
| APR | | | | | |
| 25... | 14:15 | 3020 | 477 | 3890 | 28 |
| JUN | | | | | |
| 13... | 09:10 | 1530 | 180 | 744 | 66 |
| JUL | | | | | |
| 16... | 16:50 | 450 | 234 | 284 | 70 |
| AUG | | | | | |
| 27... | 16:10 | 257 | 46 | 32 | 71 |

### PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM |
|---|---|---|---|---|
| APR | | | | |
| 25... | 28 | 39 | 91 | 100 |
| JUN | | | | |
| 13... | 66 | 66 | 80 | 100 |
| JUL | | | | |
| 16... | 81 | 91 | 100 | -- |

### PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | SEDIMENT, SUSPENDED (MG/L) | BED MAT. FALL DIAM. % FINER THAN .125 MM | BED MAT. FALL DIAM. % FINER THAN .250 MM | BED MAT. FALL DIAM. % FINER THAN .500 MM | BED MAT. FALL DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | | | | |
| 13... | 09:10 | 180 | 0 | 10 | 54 | 85 | 92 | 95 | 98 | 99 | 100 |

## 07146622 EL DORADO LAKE AT EL DORADO, KS

LOCATION.--Lat 37 deg 50 min 43 sec, long 96 deg 49 min 18 sec, in SW1/4 NW1/4 sec.30, T.25 S., R.6 E., Butler County, Hydrologic Unit 11030017, in control tower of dam on Walnut River, approximately 4.0 mi northeast of El Dorado, and at mile 114.7.

DRAINAGE AREA.--247 sq mi.

PERIOD OF RECORD.--July 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. The limited service, uncontrolled, concrete spillway is set in firm rock and has a width of 350 ft. Storage began June 29, 1981. Total capacity, 301,000 acre-ft. Other capacities are: Minimum pool, 2,900 acre-ft at elevation 1,296.0 ft; conservation pool, 76,300 acre-ft between elevations 1,296.0 ft and 1,339.0 ft; flood control pool, 79,200 acre-ft between elevations 1,339.0 ft and 1,347.5 ft; crest of uncontrolled spillway 1,353.0 ft and top of dam is 1,370.5 ft. Reservoir is used for supplemental water supply for municipal and industrial uses in the City of El Dorado, flood control, water supply and water quality control, and recreational purposes.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,338.62 ft Apr. 13, 1984, contents, 154,000 acre-ft; minimum since conservation pool was first filled, 1,288.94 ft July 26, 1981, contents, 1,150 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,338.62 ft Apr. 13, contents, 154,000 acre-ft; minimum, 1,328.38 ft Jan. 1-6, contents, 86,680 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made by Corps of Engineers in 1981)

| | | | |
|---|---|---|---|
| 1,319 | 46,000 | 1,337 | 141,500 |
| 1,325 | 70,000 | 1,343 | 191,300 |
| 1,331 | 101,500 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1328.88 | 1328.70 | 1328.52 | 1328.38 | 1328.51 | 1328.55 | 1335.48 | 1336.25 | 1336.37 | 1336.40 | 1335.47 | 1334.65 |
| 2 | 1328.87 | 1328.70 | 1328.51 | 1328.38 | 1328.52 | 1328.56 | 1335.56 | 1336.45 | 1336.36 | 1336.29 | 1335.45 | 1334.63 |
| 3 | 1328.87 | 1328.70 | 1328.56 | 1328.38 | 1328.52 | 1328.69 | 1335.69 | 1336.75 | 1336.36 | 1336.27 | 1335.43 | 1334.61 |
| 4 | 1328.83 | 1328.69 | 1328.55 | 1328.38 | 1328.52 | 1329.08 | 1335.74 | 1336.74 | 1336.35 | 1336.24 | 1335.40 | 1334.57 |
| 5 | 1328.82 | 1328.68 | 1328.55 | 1328.38 | 1328.50 | 1329.18 | 1335.78 | 1336.67 | 1336.35 | 1336.23 | 1335.37 | 1334.56 |
| 6 | 1328.80 | 1328.68 | 1328.54 | 1328.38 | 1328.50 | 1329.23 | 1335.84 | 1336.59 | 1336.36 | 1336.20 | 1335.34 | 1334.48 |
| 7 | 1328.76 | 1328.66 | 1328.54 | 1328.39 | 1328.50 | 1329.25 | 1336.24 | 1336.47 | 1336.40 | 1336.18 | 1335.33 | 1334.39 |
| 8 | 1328.76 | 1328.64 | 1328.53 | 1328.40 | 1328.50 | 1329.25 | 1337.40 | 1336.35 | 1336.56 | 1336.15 | 1335.30 | 1334.39 |
| 9 | 1328.75 | 1328.69 | 1328.52 | 1328.39 | 1328.54 | 1329.25 | 1337.74 | 1336.20 | 1336.69 | 1336.12 | 1335.28 | 1334.37 |
| 10 | 1328.72 | 1328.63 | 1328.52 | 1328.41 | 1328.55 | 1329.26 | 1338.01 | 1336.15 | 1336.76 | 1336.10 | 1335.25 | 1334.35 |
| 11 | 1328.79 | 1328.62 | 1328.51 | 1328.42 | 1328.55 | 1329.26 | 1338.22 | 1336.15 | 1336.79 | 1336.08 | 1335.23 | 1334.33 |
| 12 | 1328.75 | 1328.60 | 1328.50 | 1328.42 | 1328.56 | 1329.30 | 1338.60 | 1336.15 | 1336.80 | 1336.06 | 1335.20 | 1334.30 |
| 13 | 1328.74 | 1328.59 | 1328.50 | 1328.41 | 1328.55 | 1329.30 | 1338.56 | 1336.15 | 1336.82 | 1336.04 | 1335.17 | 1334.29 |
| 14 | 1328.69 | 1328.59 | 1328.49 | 1328.40 | 1328.55 | 1329.30 | 1338.33 | 1336.14 | 1336.82 | 1335.99 | 1335.15 | 1334.25 |
| 15 | 1328.68 | 1328.57 | 1328.46 | 1328.43 | 1328.56 | 1329.34 | 1338.10 | 1336.18 | 1336.82 | 1335.98 | 1335.16 | 1334.21 |
| 16 | 1328.69 | 1328.56 | 1328.45 | 1328.44 | 1328.56 | 1329.44 | 1337.80 | 1336.18 | 1336.80 | 1335.95 | 1335.14 | 1334.18 |
| 17 | 1328.70 | 1328.55 | 1328.41 | 1328.42 | 1328.56 | 1329.89 | 1337.44 | 1336.18 | 1336.80 | 1335.95 | 1335.11 | 1334.18 |
| 18 | 1328.68 | 1328.55 | 1328.42 | 1328.44 | 1328.56 | 1331.00 | 1337.07 | 1336.29 | 1336.80 | 1335.90 | 1335.08 | 1334.17 |
| 19 | 1328.71 | 1328.54 | 1328.40 | 1328.43 | 1328.55 | 1332.20 | 1336.65 | 1336.35 | 1336.79 | 1335.86 | 1335.04 | 1334.15 |
| 20 | 1328.76 | 1328.52 | 1328.43 | 1328.43 | 1328.55 | 1332.90 | 1336.65 | 1336.37 | 1336.78 | 1335.84 | 1335.02 | 1334.13 |
| 21 | 1328.77 | 1328.50 | 1328.42 | 1328.43 | 1328.54 | 1333.48 | 1336.91 | 1336.40 | 1336.75 | 1335.80 | 1335.03 | 1334.10 |
| 22 | 1328.75 | 1328.55 | 1328.43 | 1328.43 | 1328.53 | 1333.65 | 1336.90 | 1336.40 | 1336.74 | 1335.77 | 1335.03 | 1334.09 |
| 23 | 1328.75 | 1328.56 | 1328.41 | 1328.42 | 1328.52 | 1333.85 | 1336.82 | 1336.37 | 1336.59 | 1335.75 | 1334.93 | 1334.07 |
| 24 | 1328.73 | 1328.54 | 1328.40 | 1328.41 | 1328.51 | 1334.19 | 1336.73 | 1336.40 | 1336.63 | 1335.72 | 1334.90 | 1334.08 |
| 25 | 1328.70 | 1328.51 | 1328.40 | 1328.41 | 1328.51 | 1334.35 | 1336.58 | 1336.40 | 1336.33 | 1335.70 | 1334.86 | 1333.99 |
| 26 | 1328.68 | 1328.54 | 1328.40 | 1328.42 | 1328.54 | 1334.64 | 1336.54 | 1336.40 | 1336.33 | 1335.66 | 1334.83 | 1333.95 |
| 27 | 1328.66 | 1328.56 | 1328.40 | 1328.45 | 1328.55 | 1334.85 | 1336.40 | 1336.43 | 1336.60 | 1335.67 | 1334.81 | 1333.95 |
| 28 | 1328.66 | 1328.55 | 1328.40 | 1328.46 | 1328.55 | 1335.14 | 1336.25 | 1336.41 | 1336.85 | 1335.60 | 1334.79 | 1333.92 |
| 29 | 1328.67 | 1328.55 | 1328.40 | 1328.49 | 1328.55 | 1335.26 | 1336.29 | 1336.40 | 1336.86 | 1335.57 | 1334.77 | 1333.90 |
| 30 | 1328.67 | 1328.54 | 1328.40 | 1328.49 | --- | 1335.34 | 1336.34 | 1336.39 | 1336.63 | 1335.54 | 1334.75 | 1333.89 |
| 31 | 1328.66 | --- | 1328.39 | 1328.50 | --- | 1335.41 | --- | 1336.36 | --- | 1335.51 | 1334.71 | --- |
| MEAN | 1328.74 | 1328.60 | 1328.46 | 1328.42 | 1328.53 | 1331.37 | 1336.89 | 1336.36 | 1336.62 | 1335.96 | 1335.11 | 1334.24 |
| MAX | 1328.88 | 1328.70 | 1328.56 | 1328.50 | 1328.56 | 1335.41 | 1338.60 | 1336.75 | 1336.85 | 1336.40 | 1335.47 | 1334.65 |
| MIN | 1328.66 | 1328.50 | 1328.39 | 1328.36 | 1328.50 | 1328.55 | 1335.48 | 1336.14 | 1336.33 | 1335.51 | 1334.71 | 1333.89 |
| (+) | 88,190 | 87,550 | 86,740 | 87,330 | 87,600 | 130,000 | 136,700 | 136,800 | 138,800 | 130,700 | 125,200 | 119,600 |
| (#) | -1,410 | -640 | -810 | +590 | +270 | +42,400 | +6,700 | +100 | +2,000 | -8,100 | -5,500 | -5,600 |

CAL YR 1983 ........................ (#) 20,360
WTR YR 1984 ........................ (#) +30,000

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 07146623 WALNUT RIVER BELOW EL DORADO LAKE, KS

LOCATION.--Lat 37 deg 50 min 43 sec, long 96 deg 49 min 25 sec, in NE1/4 SE1/4 sec.25, T.25 S., R.5 E., Butler County, Hydrologic Unit 11030017, on left bank 400 ft below El Dorado Dam, and at mile 114.6.

DRAINAGE AREA.--247 sq mi.

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,270.00 ft National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records fair. Flow completely regulated since June 29, 1981 by El Dorado Lake (see sta 07146622).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,720 cu ft per sec June 11, 1982, gage height, 13.31 ft; no flow at times in 1981-84.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 cu ft per sec Apr. 16-20, gage height, unknown; no flow Oct. 1-3, June 16-18.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | 10 | 7.6 | 6.6 | 6.7 | 7.2 | 7.0 | 495 | 6.4 | 789 | 17 | 17 |
| 2 | .00 | 10 | 6.7 | 6.6 | 6.6 | 7.2 | 7.4 | 501 | 16 | 331 | 17 | 17 |
| 3 | 4.1 | 8.0 | 6.9 | 6.7 | 7.0 | 7.5 | 9.0 | 500 | 16 | 2.7 | 17 | 17 |
| 4 | 9.7 | 6.2 | 7.0 | 6.4 | 7.0 | 8.3 | 10 | 496 | 13 | 17 | 17 | 15 |
| 5 | 9.8 | 6.2 | 7.0 | 6.7 | 6.9 | 7.0 | 10 | 496 | 11 | 15 | 17 | 13 |
| 6 | 9.9 | 6.2 | 7.0 | 6.7 | 7.0 | 7.0 | 10 | 496 | 14 | 18 | 17 | 13 |
| 7 | 10 | 6.2 | 6.9 | 6.7 | 7.0 | 7.0 | 11 | 496 | 11 | 11 | 17 | 13 |
| 8 | 10 | 6.2 | 6.7 | 6.7 | 7.0 | 7.0 | 13 | 494 | .34 | 18 | 17 | 13 |
| 9 | 10 | 6.2 | 6.7 | 6.6 | 7.0 | 7.0 | 11 | 494 | 1.2 | 9.8 | 17 | 13 |
| 10 | 10 | 6.2 | 6.7 | 6.7 | 7.0 | 7.0 | 11 | 210 | .03 | 16 | 17 | 13 |
| 11 | 10 | 6.2 | 6.7 | 6.7 | 7.0 | 7.0 | 289 | 71 | 1.9 | 6.0 | 17 | 13 |
| 12 | 10 | 6.2 | 6.9 | 6.7 | 7.0 | 7.0 | 541 | 71 | 11 | .45 | 17 | 13 |
| 13 | 9.8 | 6.2 | 7.0 | 6.7 | 7.0 | 7.0 | 706 | 71 | 9.9 | 5.3 | 17 | 13 |
| 14 | 9.7 | 6.2 | 6.3 | 6.7 | 7.0 | 7.0 | 1000 | 48 | 8.5 | 17 | 17 | 13 |
| 15 | 9.8 | 6.2 | 7.3 | 6.7 | 7.0 | 7.0 | 1000 | 10 | 5.0 | 17 | 17 | 13 |
| 16 | 9.8 | 6.2 | 7.3 | 6.7 | 7.0 | 7.1 | 1260 | 7.6 | .00 | 17 | 18 | 13 |
| 17 | 10 | 6.2 | 7.1 | 6.7 | 7.0 | 7.5 | 1500 | 9.5 | .00 | 17 | 18 | 14 |
| 18 | 10 | 6.4 | 7.0 | 6.7 | 7.0 | 12 | 1500 | 11 | 6.7 | 17 | 18 | 14 |
| 19 | 10 | 6.5 | 6.8 | 6.7 | 7.0 | 7.4 | 1500 | 12 | 13 | 17 | 17 | 14 |
| 20 | 10 | 6.5 | 6.6 | 6.7 | 7.0 | 8.1 | 930 | 12 | 10 | 17 | 17 | 14 |
| 21 | 10 | 6.5 | 6.6 | 6.7 | 7.0 | 7.3 | 496 | 12 | 9.9 | 17 | 18 | 14 |
| 22 | 9.8 | 6.9 | 6.6 | 6.7 | 7.0 | 6.6 | 497 | 12 | 274 | 17 | 18 | 14 |
| 23 | 9.8 | 7.7 | 6.6 | 6.5 | 6.7 | 8.3 | 498 | 12 | 526 | 17 | 17 | 14 |
| 24 | 9.8 | 7.5 | 6.6 | 6.5 | 7.0 | 7.8 | 497 | 9.7 | 526 | 17 | 17 | 14 |
| 25 | 9.8 | 7.5 | 6.6 | 6.5 | 7.0 | 7.4 | 497 | 6.1 | 365 | 17 | 17 | 14 |
| 26 | 9.8 | 7.8 | 6.6 | 6.5 | 6.7 | 7.8 | 496 | 6.2 | 169 | 17 | 17 | 13 |
| 27 | 8.6 | 8.5 | 6.6 | 6.0 | 7.0 | 7.2 | 495 | 6.5 | .10 | 17 | 17 | 14 |
| 28 | 9.8 | 8.2 | 6.6 | 6.0 | 7.2 | 7.5 | 493 | 6.4 | .01 | 17 | 17 | 14 |
| 29 | 10 | 8.0 | 6.6 | 6.0 | 7.2 | 7.3 | 494 | 5.1 | 357 | 17 | 17 | 14 |
| 30 | 10 | 7.8 | 6.6 | 5.6 | --- | 7.2 | 494 | .13 | 792 | 17 | 17 | 14 |
| 31 | 10 | --- | 6.6 | 6.7 | --- | 7.0 | --- | .01 | --- | 17 | 17 | --- |
| TOTAL | 280.00 | 210.6 | 210.8 | 203.1 | 202.0 | 230.7 | 15282.4 | 5077.24 | 3171.98 | 1545.25 | 532 | 417 |
| MEAN | 9.03 | 7.02 | 6.80 | 6.55 | 6.97 | 7.44 | 509 | 164 | 106 | 49.8 | 17.2 | 13.9 |
| MAX | 10 | 10 | 7.6 | 6.7 | 7.2 | 12 | 1500 | 501 | 792 | 789 | 18 | 17 |
| MIN | .00 | 6.2 | 6.3 | 5.6 | 6.6 | 6.6 | 7.0 | .01 | .00 | .45 | 17 | 13 |
| AC-FT | 555 | 418 | 418 | 403 | 401 | 458 | 30310 | 10070 | 6290 | 3070 | 1060 | 827 |

CAL YR 1983 TOTAL 12940.91 MEAN 35.5 MAX 303 MIN .00 AC-FT 25670
WTR YR 1984 TOTAL 27363.07 MEAN 74.8 MAX 1500 MIN .00 AC-FT 54270

## 07146830 WALNUT RIVER AT HIGHWAY 54 EAST OF EL DORADO, KS

LOCATION.--Lat 37 deg 49 min 01 sec, long 96 deg 50 min 21 sec, in NE1/4 NW1/4 SW1/4 sec.1, T.26 S., R.5 E., Butler County, Hydrologic Unit 11030017, on right bank at downstream side of bridge on U.S. Highway 54 on east edge of El Dorado, at mouth of West Branch, and at mile 109.6.

DRAINAGE AREA.--350 sq mi.

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,258.46 ft National Geodetic Vertical Datum of 1929. Sept. 12, 1953 to July 7, 1959, nonrecording gage at U.S. Highway 77 bridge 1.0 mi downstream at datum 10.86 ft lower. July 8, 1959 to Sept. 17, 1981, nonrecording gage at present site at datum 1.00 ft higher.

REMARKS.--Records good. Flow partially regulated since October 1981 by El Dorado Lake 5.1 mi upstream (see sta 07146622).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,910 cu ft per sec May 12, 1982, gage height, 11.59 ft; minimum, 0.87 cu ft per sec Oct. 5-12, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 5, 1965, reached a stage of 23.95 ft, datum then in use, and flood of June 8, 1979, reached a stage of 25.65 ft, datum then in use, from information by National Weather Service and Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,110 cu ft per sec Mar. 18, gage height, 7.58 ft; minimum, 2.0 cu ft per sec Oct. 1-3, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.2 | 15 | 14 | 13 | 19 | 26 | 88 | 601 | 28 | 743 | 16 | 13 |
| 2 | 2.4 | 35 | 13 | 13 | 18 | 24 | 103 | 884 | 37 | 434 | 15 | 15 |
| 3 | 2.3 | 20 | 17 | 13 | 17 | 27 | 189 | 1000 | 42 | 19 | 14 | 15 |
| 4 | 2.4 | 13 | 18 | 14 | 17 | 335 | 110 | 673 | 43 | 23 | 14 | 11 |
| 5 | 4.2 | 11 | 16 | 15 | 15 | 114 | 80 | 621 | 37 | 27 | 15 | 10 |
| 6 | 9.2 | 9.9 | 16 | 18 | 14 | 59 | 69 | 604 | 39 | 37 | 14 | 8.4 |
| 7 | 10 | 10 | 16 | 22 | 15 | 43 | 154 | 599 | 44 | 28 | 14 | 8.6 |
| 8 | 11 | 11 | 15 | 24 | 15 | 35 | 1490 | 588 | 40 | 25 | 14 | 9.6 |
| 9 | 11 | 11 | 14 | 23 | 18 | 31 | 407 | 582 | 303 | 20 | 15 | 10 |
| 10 | 10 | 12 | 13 | 20 | 19 | 29 | 276 | 340 | 63 | 18 | 14 | 8.5 |
| 11 | 15 | 12 | 13 | 18 | 19 | 28 | 561 | 132 | 40 | 20 | 14 | 8.7 |
| 12 | 13 | 11 | 13 | 16 | 19 | 32 | 1250 | 127 | 38 | 7.3 | 14 | 8.4 |
| 13 | 12 | 12 | 12 | 15 | 19 | 30 | 857 | 125 | 37 | 4.7 | 13 | 8.6 |
| 14 | 12 | 12 | 11 | 14 | 18 | 29 | 1090 | 108 | 32 | 16 | 13 | 10 |
| 15 | 12 | 12 | 11 | 14 | 20 | 30 | 1050 | 110 | 30 | 20 | 12 | 11 |
| 16 | 12 | 11 | 11 | 14 | 23 | 37 | 1200 | 63 | 22 | 21 | 12 | 10 |
| 17 | 13 | 11 | 11 | 14 | 28 | 577 | 1420 | 55 | 19 | 23 | 12 | 12 |
| 18 | 13 | 11 | 10 | 14 | 23 | 1100 | 1440 | 54 | 19 | 21 | 12 | 12 |
| 19 | 14 | 10 | 9.6 | 13 | 20 | 1310 | 1500 | 62 | 27 | 21 | 13 | 12 |
| 20 | 20 | 10 | 9.7 | 13 | 18 | 624 | 1180 | 99 | 30 | 18 | 12 | 11 |
| 21 | 22 | 10 | 10 | 13 | 19 | 723 | 926 | 83 | 28 | 18 | 15 | 10 |
| 22 | 16 | 12 | 10 | 14 | 18 | 189 | 684 | 71 | 213 | 18 | 22 | 11 |
| 23 | 15 | 15 | 10 | 15 | 18 | 248 | 629 | 66 | 524 | 16 | 17 | 12 |
| 24 | 14 | 14 | 9.3 | 15 | 17 | 787 | 611 | 56 | 525 | 16 | 16 | 9.1 |
| 25 | 13 | 13 | 9.5 | 16 | 17 | 222 | 600 | 45 | 411 | 16 | 15 | 9.9 |
| 26 | 13 | 13 | 9.6 | 19 | 21 | 260 | 595 | 42 | 221 | 16 | 15 | 11 |
| 27 | 12 | 17 | 11 | 31 | 32 | 255 | 592 | 45 | 22 | 16 | 13 | 12 |
| 28 | 12 | 24 | 13 | 29 | 37 | 274 | 583 | 46 | 16 | 16 | 13 | 12 |
| 29 | 13 | 19 | 13 | 25 | 29 | 383 | 693 | 39 | 241 | 17 | 12 | 11 |
| 30 | 14 | 15 | 12 | 21 | --- | 134 | 664 | 31 | 743 | 15 | 12 | 11 |
| 31 | 14 | --- | 13 | 19 | --- | 96 | --- | 28 | --- | 16 | 12 | --- |
| TOTAL | 358.7 | 411.9 | 383.7 | 537 | 581 | 8091 | 21091 | 7979 | 3914 | 1726.0 | 434 | 321.8 |
| MEAN | 11.6 | 13.7 | 12.4 | 17.3 | 20.0 | 261 | 703 | 257 | 130 | 55.7 | 14.0 | 10.7 |
| MAX | 22 | 35 | 18 | 31 | 37 | 1310 | 1500 | 1000 | 743 | 743 | 22 | 15 |
| MIN | 2.2 | 9.9 | 9.3 | 13 | 14 | 24 | 69 | 28 | 16 | 4.7 | 12 | 8.4 |
| AC-FT | 711 | 817 | 761 | 1070 | 1150 | 16050 | 41830 | 15830 | 7760 | 3420 | 861 | 638 |

CAL YR 1983 TOTAL 26021.3 MEAN 71.3 MAX 2090 MIN 2.1 AC-FT 51610
WTR YR 1984 TOTAL 45829.1 MEAN 125 MAX 1500 MIN 2.2 AC-FT 90900

## 07146895 WALNUT RIVER AT AUGUSTA, KS

LOCATION.--Lat 39 deg 40 min 14 sec, long 96 deg 58 min 49 sec, in NW1/4 NW1/4 SE1/4 sec.27, T.27 S., R.4 E., Butler County, Hydrologic Unit 11030017, on right bank at south edge of Augusta, 1.6 mi upstream from the Whitewater River, and at mile 87.5.

DRAINAGE AREA.--452 sq mi.

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recordor and concrete control. Datum of gage is 1,194.80 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Discharge may, at times, be affected by backwater from Whitewater River. Flow moderately regulated since October 1981 by El Dorado Lake 27.2 mi upstream (see sta 07146622) and numerous diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,920 cu ft per sec May 12, 1982, gage height, 18.56 ft; minimum, 4.2 cu ft per sec Oct. 8-10, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1979 reached a stage of 37.23 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,950 cu ft per sec May 15, gage height, 13.44 ft; minimum discharge, 4.8 cu ft per sec Oct. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.9 | 18 | 21 | 20 | 27 | 42 | 223 | 656 | 70 | 795 | 24 | 20 |
| 2 | 5.6 | 18 | 21 | 21 | 27 | 37 | 221 | 787 | 66 | 739 | 24 | 20 |
| 3 | 5.2 | 32 | 23 | 21 | 25 | 38 | 341 | 953 | 73 | 137 | 24 | 21 |
| 4 | 5.2 | 22 | 28 | 22 | 25 | 517 | 284 | 857 | 76 | 40 | 23 | 23 |
| 5 | 5.2 | 18 | 27 | 22 | 25 | 323 | 208 | 722 | 76 | 46 | 23 | 22 |
| 6 | 4.9 | 16 | 23 | 23 | 23 | 138 | 173 | 686 | 69 | 52 | 24 | 20 |
| 7 | 5.3 | 15 | 24 | 25 | 24 | 90 | 179 | 669 | 81 | 77 | 23 | 18 |
| 8 | 16 | 15 | 24 | 29 | 24 | 69 | 1030 | 645 | 114 | 48 | 23 | 16 |
| 9 | 17 | 16 | 23 | 32 | 26 | 59 | 1040 | 633 | 1220 | 46 | 23 | 19 |
| 10 | 17 | 17 | 23 | 28 | 30 | 52 | 488 | 577 | 312 | 39 | 23 | 20 |
| 11 | 19 | 17 | 23 | 26 | 33 | 50 | 636 | 224 | 154 | 36 | 23 | 21 |
| 12 | 25 | 16 | 22 | 25 | 30 | 55 | 1030 | 202 | 104 | 35 | 23 | 18 |
| 13 | 18 | 15 | 22 | 23 | 25 | 59 | 912 | 196 | 100 | 26 | 23 | 18 |
| 14 | 17 | 16 | 22 | 22 | 27 | 53 | 1040 | 222 | 85 | 23 | 23 | 18 |
| 15 | 17 | 17 | 21 | 21 | 28 | 56 | 1070 | 2570 | 77 | 29 | 22 | 18 |
| 16 | 18 | 17 | 20 | 21 | 32 | 61 | 1060 | 546 | 68 | 33 | 22 | 20 |
| 17 | 19 | 17 | 20 | 21 | 33 | 574 | 1050 | 186 | 53 | 39 | 21 | 22 |
| 18 | 21 | 17 | 19 | 21 | 39 | 737 | 1050 | 136 | 51 | 39 | 22 | 23 |
| 19 | 20 | 17 | 19 | 21 | 34 | 882 | 1030 | 137 | 52 | 36 | 22 | 21 |
| 20 | 25 | 17 | 18 | 21 | 29 | 891 | 1050 | 268 | 56 | 35 | 21 | 21 |
| 21 | 40 | 17 | 18 | 21 | 28 | 800 | 1090 | 222 | 56 | 33 | 21 | 21 |
| 22 | 26 | 18 | 18 | 21 | 28 | 484 | 861 | 163 | 54 | 31 | 36 | 20 |
| 23 | 20 | 23 | 18 | 22 | 27 | 434 | 736 | 133 | 562 | 28 | 28 | 21 |
| 24 | 18 | 23 | 18 | 23 | 25 | 847 | 698 | 119 | 589 | 29 | 22 | 21 |
| 25 | 18 | 22 | 18 | 24 | 25 | 800 | 674 | 103 | 553 | 29 | 22 | 21 |
| 26 | 17 | 21 | 18 | 25 | 30 | 350 | 667 | 89 | 358 | 27 | 22 | 19 |
| 27 | 17 | 22 | 18 | 28 | 37 | 300 | 660 | 161 | 149 | 28 | 22 | 21 |
| 28 | 16 | 25 | 19 | 35 | 50 | 400 | 630 | 182 | 49 | 29 | 21 | 23 |
| 29 | 15 | 26 | 19 | 37 | 53 | 450 | 654 | 106 | 50 | 29 | 21 | 23 |
| 30 | 17 | 24 | 19 | 33 | --- | 336 | 793 | 88 | 687 | 28 | 20 | 22 |
| 31 | 19 | --- | 19 | 30 | --- | 238 | --- | 76 | --- | 24 | 21 | --- |
| TOTAL | 509.3 | 574 | 645 | 764 | 872 | 10222 | 21578 | 13314 | 6064 | 2665 | 712 | 611 |
| MEAN | 16.4 | 19.1 | 20.8 | 24.6 | 30.1 | 330 | 719 | 429 | 202 | 86.0 | 23.0 | 20.4 |
| MAX | 40 | 32 | 28 | 37 | 53 | 891 | 1090 | 2570 | 1220 | 795 | 36 | 23 |
| MIN | 4.9 | 15 | 18 | 20 | 23 | 37 | 173 | 76 | 49 | 23 | 20 | 16 |
| AC-FT | 1010 | 1140 | 1280 | 1520 | 1730 | 20280 | 42800 | 26410 | 12030 | 5290 | 1410 | 1210 |

CAL YR 1983 TOTAL 40290.6 MEAN 110 MAX 3000 MIN 4.9 AC-FT 79920
WTR YR 1984 TOTAL 58530.3 MEAN 160 MAX 2570 MIN 4.9 AC-FT 116100

## 07147070 WHITEWATER RIVER AT TOWANDA, KS

LOCATION.--Lat 37 deg 47 min 45 sec, long 97 deg 00 min 45 sec, in SE1/4 SW1/4 SE1/4 sec.8, T.26 S., R.4 E., Butler County, Hydrologic Unit 11030017, at downstream side of bridge on State Highway 254, 0.5 mi west of Towanda, 2.4 mi downstream from West Branch, and at mile 17.5.

DRAINAGE AREA.--426 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum, water years 1960-61. October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,231.47 ft National Geodetic Vertical Datum of 1929 (levels by State Highway Commission). Prior to Oct. 1, 1961, crest-stage gage at same site at datum 5.22 ft higher.

REMARKS.--Records fair except those for winter period, which are poor. Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--23 years, 177 cu ft per sec, 128,200 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,400 cu ft per sec June 8, 1979, gage height, 29.73 ft from rating curve extended above 39,000 cu ft per sec; minimum, 0.20 cu ft per sec July 14, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 1944 reached a stage of 28.6 ft from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 17 | 1800 | 3,360 | 15.03 | Apr. 21 | 1100 | 2,130 | 11.41 |
| Apr. 9 | 0200 | *5,930 | 20.92 | May 15 | 1600 | 3,320 | 14.91 |

Minimum discharge, 2.9 cu ft per sec Oct. 5-8 and Sept. 8, 9.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.4 | 10 | 30 | 15 | 43 | 36 | 240 | 247 | 66 | 33 | 15 | 4.7 |
| 2 | 3.4 | 43 | 22 | 17 | 39 | 32 | 323 | 181 | 63 | 32 | 14 | 4.3 |
| 3 | 3.1 | 22 | 21 | 19 | 34 | 31 | 1000 | 565 | 60 | 31 | 14 | 4.4 |
| 4 | 3.4 | 14 | 21 | 22 | 31 | 85 | 494 | 307 | 59 | 31 | 13 | 4.6 |
| 5 | 3.1 | 11 | 22 | 23 | 28 | 95 | 301 | 187 | 61 | 29 | 13 | 4.6 |
| 6 | 2.9 | 11 | 22 | 25 | 36 | 67 | 226 | 158 | 59 | 28 | 13 | 4.6 |
| 7 | 2.9 | 11 | 22 | 29 | 26 | 47 | 379 | 149 | 58 | 28 | 12 | 4.1 |
| 8 | 3.1 | 10 | 20 | 41 | 25 | 38 | 4440 | 135 | 105 | 27 | 12 | 3.2 |
| 9 | 3.4 | 11 | 20 | 40 | 25 | 34 | 3880 | 124 | 483 | 25 | 12 | 3.2 |
| 10 | 3.6 | 11 | 20 | 40 | 26 | 32 | 762 | 117 | 125 | 23 | 12 | 3.4 |
| 11 | 5.4 | 13 | 20 | 40 | 27 | 32 | 1000 | 111 | 77 | 23 | 11 | 3.6 |
| 12 | 7.1 | 15 | 20 | 35 | 28 | 32 | 1070 | 105 | 65 | 22 | 10 | 3.6 |
| 13 | 8.2 | 15 | 19 | 30 | 28 | 34 | 483 | 101 | 61 | 22 | 9.8 | 3.6 |
| 14 | 7.8 | 15 | 18 | 25 | 28 | 35 | 296 | 101 | 58 | 22 | 9.0 | 3.6 |
| 15 | 6.7 | 14 | 17 | 23 | 28 | 35 | 231 | 1720 | 54 | 22 | 9.0 | 3.6 |
| 16 | 5.8 | 13 | 16 | 22 | 27 | 36 | 197 | 1170 | 51 | 21 | 9.0 | 3.4 |
| 17 | 6.7 | 13 | 16 | 22 | 26 | 2250 | 179 | 164 | 49 | 21 | 8.5 | 4.4 |
| 18 | 7.1 | 12 | 15 | 22 | 26 | 1300 | 163 | 122 | 47 | 21 | 8.2 | 5.2 |
| 19 | 6.7 | 12 | 14 | 22 | 26 | 1400 | 152 | 112 | 45 | 20 | 7.7 | 5.2 |
| 20 | 13 | 12 | 13 | 21 | 25 | 1600 | 211 | 323 | 44 | 19 | 7.2 | 5.2 |
| 21 | 22 | 12 | 12 | 22 | 25 | 1200 | 1660 | 146 | 44 | 19 | 7.1 | 5.0 |
| 22 | 20 | 14 | 12 | 22 | 25 | 1900 | 640 | 115 | 43 | 18 | 7.1 | 4.5 |
| 23 | 15 | 14 | 12 | 23 | 24 | 1300 | 346 | 109 | 42 | 18 | 6.6 | 4.2 |
| 24 | 12 | 14 | 12 | 23 | 23 | 1000 | 250 | 104 | 49 | 17 | 6.4 | 4.1 |
| 25 | 10 | 15 | 13 | 24 | 23 | 900 | 201 | 91 | 57 | 17 | 6.4 | 3.5 |
| 26 | 9.4 | 15 | 14 | 26 | 24 | 900 | 173 | 81 | 46 | 16 | 6.4 | 3.5 |
| 27 | 9.0 | 49 | 15 | 32 | 27 | 1000 | 156 | 78 | 44 | 16 | 6.4 | 3.9 |
| 28 | 8.6 | 195 | 14 | 45 | 34 | 1200 | 138 | 85 | 39 | 16 | 6.1 | 4.1 |
| 29 | 8.2 | 76 | 14 | 55 | 34 | 1000 | 137 | 76 | 42 | 16 | 6.0 | 4.1 |
| 30 | 8.9 | 42 | 14 | 52 | --- | 375 | 274 | 73 | 35 | 15 | 5.7 | 4.3 |
| 31 | 8.2 | --- | 14 | 65 | --- | 264 | --- | 70 | --- | 15 | 5.1 | --- |
| TOTAL | 238.1 | 734 | 534 | 922 | 821 | 18288 | 20002 | 7227 | 2131 | 683 | 288.7 | 123.7 |
| MEAN | 7.68 | 24.5 | 17.2 | 29.7 | 28.3 | 590 | 667 | 233 | 71.0 | 22.0 | 9.31 | 4.12 |
| MAX | 22 | 195 | 30 | 65 | 43 | 2250 | 4440 | 1720 | 483 | 33 | 15 | 5.2 |
| MIN | 2.9 | 10 | 12 | 15 | 23 | 31 | 137 | 70 | 35 | 15 | 5.1 | 3.2 |
| AC-FT | 472 | 1460 | 1060 | 1830 | 1630 | 36270 | 39670 | 14330 | 4230 | 1350 | 573 | 245 |

CAL YR 1983 TOTAL 46000.6 MEAN 126 MAX 6700 MIN 2.9 AC-FT 91240
WTR YR 1984 TOTAL 51992.5 MEAN 142 MAX 4440 MIN 2.9 AC-FT 103100

## 07147070 WHITEWATER RIVER AT TOWANDA, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT | | | | | |
| 06... | 11:40 | 3.0 | 4000 | 7.9 | 16.5 |
| NOV | | | | | |
| 08... | 09:10 | 10 | 2750 | 7.5 | 14.0 |
| JAN | | | | | |
| 04... | 10:15 | 22 | 2500 | 8.0 | 0.0 |
| FEB | | | | | |
| 06... | 13:00 | 35 | 1650 | 8.3 | 1.0 |
| MAR | | | | | |
| 12... | 16:15 | 32 | 1770 | 7.8 | 7.0 |
| APR | | | | | |
| 24... | 09:20 | 272 | 931 | 8.5 | 11.0 |
| JUN | | | | | |
| 11... | 14:30 | 73 | 1170 | 8.1 | 24.0 |
| JUL | | | | | |
| 12... | 09:50 | 21 | 2130 | 8.2 | 24.0 |
| AUG | | | | | |
| 23... | 09:30 | 6.9 | 1780 | 8.1 | 23.0 |

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| OCT | | | | |
| 06... | 11:40 | 3.0 | 82 | 0.66 |
| NOV | | | | |
| 08... | 09:10 | 10 | 65 | 1.8 |
| JAN | | | | |
| 04... | 10:15 | 22 | 37 | 2.2 |
| FEB | | | | |
| 06... | 13:00 | 35 | 18 | 1.7 |
| MAR | | | | |
| 12... | 16:15 | 32 | 18 | 1.6 |
| APR | | | | |
| 24... | 09:20 | 272 | 123 | 90 |
| JUN | | | | |
| 11... | 14:30 | 73 | 74 | 15 |
| JUL | | | | |
| 12... | 09:50 | 21 | 106 | 6.0 |
| AUG | | | | |
| 23... | 09:30 | 6.9 | 61 | 1.1 |

## 07147800 WALNUT RIVER AT WINFIELD, KS

LOCATION.--Lat 37 deg 13 min 27 sec, long 96 deg 59 min 40 sec, in SW1/4 SW1/4 NE1/4 sec.33, T.32 S., R.4 E., Cowley County, Hydrologic Unit 11030018, at downstream side of bridge on U.S. Highway 77, 1.0 mi south of Winfield, 1.0 mi upstream from Black Crook Creek, and at mile 25.4.

DRAINAGE AREA.--1,880 sq mi, revised.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. October to November 1921 monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 607: 1923(M). WDR KS-82-1: Drainage area. WSP 1241: 1922(M), 1923, 1926-27, 1928-29(M), 1934, 1940-41.

GAGE.--Water-stage recorder. Datum of gage is 1,082.86 ft National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Oct. 1, 1934, nonrecording gage on upstream side of former bridge just upstream from present gage at same datum.

REMARKS.--Records good. Some regulation at low flow by City Water Works Dam and Timber Creek Reservoir above station. Flow moderately regulated by El Dorado Lake (see sta 07146622) since July 1981.

AVERAGE DISCHARGE.--63 years, 790 cu ft per sec, 572,400 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 105,000 cu ft per sec Apr. 23, 1944, gage height, 38.30 ft; no flow at times in 1929, 1936, 1954-56, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 9,600 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 20 | 0800 | 13,100 | 16.16 | May 15 | 1500 | *17,100 | 19.19 |
| Mar. 24 | 2400 | 13,800 | 16.69 | June 10 | 0500 | 16,000 | 18.33 |
| Apr. 9 | 1700 | 13,000 | 16.11 | | | | |

Minimum discharge, 27 cu ft per sec Sept. 11-13, 15, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 40 | 67 | 251 | 99 | 152 | 272 | 2180 | 2220 | 840 | 772 | 84 | 47 |
| 2 | 38 | 78 | 179 | 101 | 146 | 256 | 1960 | 1810 | 714 | 1040 | 82 | 46 |
| 3 | 35 | 79 | 158 | 107 | 142 | 232 | 2170 | 3430 | 638 | 974 | 80 | 49 |
| 4 | 31 | 82 | 172 | 115 | 133 | 241 | 3310 | 4360 | 596 | 494 | 76 | 48 |
| 5 | 29 | 128 | 198 | 120 | 127 | 1440 | 2330 | 2590 | 563 | 274 | 71 | 45 |
| 6 | 28 | 103 | 214 | 126 | 118 | 1050 | 1680 | 2050 | 530 | 220 | 69 | 42 |
| 7 | 30 | 86 | 194 | 137 | 109 | 668 | 1490 | 1780 | 486 | 217 | 70 | 41 |
| 8 | 34 | 77 | 174 | 142 | 103 | 483 | 5710 | 1590 | 514 | 220 | 68 | 42 |
| 9 | 36 | 82 | 159 | 149 | 113 | 376 | 12400 | 1440 | 11600 | 224 | 68 | 39 |
| 10 | 42 | 76 | 150 | 152 | 119 | 305 | 10100 | 1340 | 13900 | 184 | 77 | 33 |
| 11 | 62 | 75 | 142 | 161 | 125 | 258 | 5260 | 1220 | 4800 | 180 | 82 | 30 |
| 12 | 66 | 73 | 135 | 174 | 124 | 267 | 6640 | 835 | 3120 | 171 | 78 | 27 |
| 13 | 67 | 77 | 130 | 141 | 133 | 272 | 7100 | 738 | 2470 | 159 | 75 | 28 |
| 14 | 67 | 81 | 130 | 136 | 140 | 369 | 3930 | 695 | 1990 | 149 | 64 | 30 |
| 15 | 67 | 81 | 124 | 133 | 135 | 395 | 3190 | 10100 | 1570 | 128 | 61 | 28 |
| 16 | 66 | 82 | 118 | 122 | 130 | 391 | 2700 | 13500 | 1250 | 125 | 55 | 28 |
| 17 | 64 | 82 | 115 | 109 | 124 | 1270 | 2520 | 5240 | 1000 | 135 | 54 | 36 |
| 18 | 98 | 83 | 101 | 107 | 124 | 5140 | 2600 | 2070 | 822 | 142 | 51 | 44 |
| 19 | 82 | 84 | 98 | 105 | 124 | 10900 | 2510 | 1520 | 739 | 145 | 46 | 55 |
| 20 | 114 | 82 | 104 | 107 | 124 | 12800 | 2550 | 2510 | 683 | 139 | 44 | 60 |
| 21 | 265 | 82 | 101 | 101 | 120 | 10300 | 3510 | 2620 | 616 | 123 | 44 | 58 |
| 22 | 225 | 82 | 101 | 99 | 114 | 7520 | 4790 | 1610 | 564 | 115 | 52 | 50 |
| 23 | 165 | 101 | 100 | 99 | 109 | 6830 | 3120 | 1230 | 555 | 111 | 98 | 45 |
| 24 | 131 | 104 | 95 | 101 | 104 | 13400 | 2260 | 1030 | 836 | 107 | 119 | 42 |
| 25 | 107 | 110 | 93 | 107 | 102 | 12200 | 1900 | 897 | 946 | 103 | 91 | 42 |
| 26 | 95 | 114 | 94 | 118 | 148 | 5920 | 1700 | 794 | 901 | 104 | 71 | 38 |
| 27 | 85 | 122 | 96 | 118 | 180 | 4100 | 1620 | 753 | 673 | 100 | 64 | 41 |
| 28 | 81 | 136 | 99 | 121 | 179 | 4600 | 1480 | 3200 | 520 | 92 | 61 | 42 |
| 29 | 74 | 235 | 99 | 127 | 211 | 4930 | 1430 | 1990 | 376 | 88 | 57 | 41 |
| 30 | 70 | 386 | 99 | 142 | --- | 4350 | 2130 | 1320 | 354 | 84 | 57 | 42 |
| 31 | 67 | --- | 99 | 159 | --- | 2650 | --- | 1030 | --- | 84 | 53 | --- |
| TOTAL | 2461 | 3130 | 4122 | 3835 | 3812 | 114185 | 106270 | 77512 | 55166 | 7203 | 2122 | 1239 |
| MEAN | 79.4 | 104 | 133 | 124 | 131 | 3683 | 3542 | 2500 | 1839 | 232 | 68.5 | 41.3 |
| MAX | 265 | 386 | 251 | 174 | 211 | 13400 | 12400 | 13500 | 13900 | 1040 | 119 | 60 |
| MIN | 28 | 67 | 93 | 99 | 102 | 232 | 1430 | 695 | 354 | 84 | 44 | 27 |
| AC-FT | 4880 | 6210 | 8180 | 7610 | 7560 | 226500 | 210800 | 153700 | 109400 | 14290 | 4210 | 2460 |

CAL YR 1983 TOTAL 325329 MEAN 891 MAX 18100 MIN 28 AC-FT 645300
WTR YR 1984 TOTAL 381057 MEAN 1041 MAX 13900 MIN 27 AC-FT 755800

## 07147800 WALNUT RIVER AT WINFIELD, KS--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1961 to September 1969.
WATER TEMPERATURES: October 1961 to September 1975.
SUSPENDED-SEDIMENT RECORDS: September 1961 to September 1975.

REMARKS.--Sediment samples are collected only at selected flow conditions.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT | | | | | |
| 13... | 09:25 | 67 | 1350 | 8.0 | 18.0 |
| NOV | | | | | |
| 08... | 16:40 | 77 | 16 | 8.1 | 16.0 |
| JAN | | | | | |
| 07... | 09:05 | 134 | 1780 | 7.9 | 0.0 |
| FEB | | | | | |
| 07... | 11:05 | 109 | 1260 | 8.3 | 4.0 |
| MAR | | | | | |
| 13... | 15:35 | 291 | 717 | 7.9 | 8.0 |
| APR | | | | | |
| 24... | 17:05 | 2170 | 479 | 8.9 | 13.0 |
| JUN | | | | | |
| 12... | 15:00 | 3190 | 332 | 8.4 | 26.0 |
| JUL | | | | | |
| 16... | 14:35 | 127 | 773 | 7.7 | 27.5 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|
| OCT | | | | | |
| 13... | 09:25 | 67 | 40 | 7.2 | -- |
| NOV | | | | | |
| 08... | 16:40 | 77 | 35 | 7.3 | -- |
| JAN | | | | | |
| 07... | 09:05 | 134 | 25 | 9.0 | -- |
| FEB | | | | | |
| 07... | 11:05 | 109 | 11 | 3.2 | -- |
| MAR | | | | | |
| 13... | 15:35 | 291 | 39 | 31 | -- |
| APR | | | | | |
| 25... | 07:40 | 1820 | 254 | 1250 | -- |
| JUN | | | | | |
| 12... | 15:00 | 3190 | 201 | 1730 | 96 |
| JUL | | | | | |
| 16... | 14:35 | 127 | 42 | 14 | -- |
| AUG | | | | | |
| 27... | 14:10 | 63 | 22 | 3.7 | -- |

## 07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS

LOCATION.--Lat 37 deg 02 min 17 sec, long 98 deg 28 min 04 sec, in SE1/4 SW1/4 sec.36, T.34 S., R.11 W., Barber County, Hydrologic Unit 11060003, at downstream side of bridge on State Highway 14, 200 ft downstream from the Atchison, Topeka and Santa Fe Railway Co. bridge, 1.5 mi northeast of Kiowa, and at mile 22.2.

DRAINAGE AREA.--903 sq mi.

PERIOD OF RECORD.--May 1895 to October 1896, October 1937 to September 1950, October 1954 to September 1955, June 1959 to current year. Published as Medicine River near Kiowa 1895-96. All figures of discharge above 2,000 cu ft per sec for June and July 1896, published in Eighteenth Annual Report of the Geological Survey (Part 4), have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1391: 1938(M), 1942(M). WSP 1921: Drainage area. See also "PERIOD OF RECORD."

GAGE.--Water-stage recorder. Datum of gage is 1,286.99 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). May 1895 to October 1896, nonrecording gage at site 2.0 mi upstream at different datum. Feb. 11 to Mar. 2, 1938, nonrecording gage and Mar. 3, 1938, to Sept. 30, 1944, water-stage recorder at present site and datum 3.00 ft higher. Oct. 1, 1944, to Sept. 30, 1950, and Oct. 1, 1954, to Sept. 30, 1955, water-stage recorder at present site and datum.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--39 years (water years 1938-50, 1955, 1960-84), 135 cu ft per sec, 97,810 acre-ft per yr. Natural flow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 cu ft per sec Oct. 22, 1941, gage height, 11.75 ft, present datum; maximum gage height, 12.10 ft Oct. 12, 1973; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of May 8, 1922, and June 1957 reached stages of about 16 ft and 15.5 ft, respectively, present site and datum, from the Atchison, Topeka and Santa Fe Railway Co. records and information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,400 cu ft per sec June 14, gage height, 6.18 ft, no peak above base of 3,700 cu ft per sec; minimum daily, 2.2 cu ft per sec Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 28 | 35 | 88 | 170 | 135 | 100 | 288 | 604 | 101 | 96 | 9.1 | 3.3 |
| 2 | 23 | 50 | 96 | 200 | 135 | 100 | 344 | 374 | 94 | 92 | 11 | 3.1 |
| 3 | 22 | 56 | 100 | 220 | 122 | 99 | 430 | 349 | 97 | 89 | 9.9 | 3.5 |
| 4 | 20 | 45 | 110 | 230 | 116 | 110 | 413 | 300 | 123 | 85 | 9.0 | 3.8 |
| 5 | 20 | 37 | 110 | 240 | 108 | 110 | 318 | 272 | 162 | 81 | 8.4 | 3.6 |
| 6 | 25 | 60 | 102 | 250 | 107 | 108 | 289 | 285 | 126 | 78 | 8.0 | 3.2 |
| 7 | 37 | 86 | 100 | 260 | 101 | 106 | 336 | 314 | 106 | 70 | 7.6 | 2.3 |
| 8 | 40 | 96 | 95 | 230 | 100 | 102 | 462 | 288 | 117 | 60 | 15 | 2.6 |
| 9 | 35 | 100 | 93 | 190 | 112 | 100 | 424 | 254 | 649 | 52 | 22 | 3.2 |
| 10 | 47 | 86 | 94 | 161 | 118 | 104 | 345 | 235 | 254 | 70 | 19 | 3.5 |
| 11 | 52 | 74 | 117 | 111 | 112 | 110 | 330 | 233 | 140 | 62 | 21 | 2.5 |
| 12 | 66 | 68 | 108 | 86 | 110 | 116 | 358 | 226 | 114 | 58 | 19 | 2.2 |
| 13 | 72 | 70 | 100 | 77 | 109 | 114 | 298 | 213 | 99 | 54 | 15 | 2.3 |
| 14 | 65 | 72 | 96 | 71 | 107 | 106 | 259 | 209 | 1040 | 42 | 14 | 3.0 |
| 15 | 65 | 66 | 90 | 67 | 106 | 104 | 239 | 202 | 1000 | 37 | 10 | 3.8 |
| 16 | 65 | 60 | 85 | 64 | 98 | 200 | 229 | 195 | 383 | 37 | 7.1 | 4.0 |
| 17 | 70 | 56 | 80 | 62 | 94 | 280 | 220 | 185 | 195 | 46 | 6.0 | 7.0 |
| 18 | 70 | 52 | 75 | 59 | 100 | 302 | 215 | 170 | 152 | 47 | 5.6 | 6.2 |
| 19 | 66 | 56 | 65 | 58 | 102 | 370 | 211 | 162 | 142 | 35 | 5.2 | 4.5 |
| 20 | 125 | 58 | 64 | 56 | 100 | 425 | 226 | 202 | 140 | 29 | 4.4 | 4.0 |
| 21 | 120 | 56 | 56 | 56 | 103 | 387 | 297 | 180 | 145 | 27 | 4.4 | 3.5 |
| 22 | 90 | 56 | 52 | 58 | 104 | 280 | 269 | 170 | 143 | 25 | 5.2 | 3.3 |
| 23 | 70 | 52 | 52 | 61 | 99 | 325 | 286 | 155 | 130 | 22 | 5.6 | 3.2 |
| 24 | 66 | 50 | 51 | 71 | 94 | 556 | 256 | 148 | 122 | 21 | 5.6 | 3.3 |
| 25 | 60 | 66 | 49 | 56 | 94 | 511 | 242 | 138 | 116 | 18 | 6.4 | 4.0 |
| 26 | 56 | 80 | 48 | 140 | 110 | 541 | 226 | 130 | 110 | 17 | 6.0 | 3.8 |
| 27 | 53 | 110 | 50 | 170 | 113 | 377 | 214 | 156 | 102 | 16 | 5.6 | 5.2 |
| 28 | 50 | 92 | 53 | 210 | 109 | 333 | 204 | 168 | 100 | 15 | 5.2 | 6.8 |
| 29 | 45 | 100 | 71 | 220 | 102 | 292 | 233 | 125 | 96 | 13 | 4.8 | 10 |
| 30 | 40 | 94 | 104 | 152 | --- | 253 | 475 | 116 | 98 | 11 | 4.2 | 14 |
| 31 | 36 | --- | 135 | 145 | --- | 251 | --- | 106 | --- | 10 | 3.7 | --- |
| TOTAL | 1699 | 2039 | 2592 | 4231 | 3120 | 7272 | 8936 | 6864 | 6394 | 1415 | 283.0 | 128.7 |
| MEAN | 54.8 | 68.0 | 83.6 | 136 | 108 | 235 | 298 | 221 | 213 | 45.6 | 9.13 | 4.29 |
| MAX | 125 | 110 | 135 | 260 | 135 | 556 | 475 | 604 | 1040 | 96 | 22 | 14 |
| MIN | 20 | 35 | 48 | 56 | 94 | 99 | 204 | 106 | 94 | 10 | 3.7 | 2.2 |
| AC-FT | 3370 | 4040 | 5140 | 8390 | 6190 | 14420 | 17720 | 13610 | 12680 | 2810 | 561 | 255 |

CAL YR 1983 TOTAL 47719.0 MEAN 131 MAX 1530 MIN 3.0 AC-FT 94650
WTR YR 1984 TOTAL 44973.7 MEAN 123 MAX 1040 MIN 2.2 AC-FT 89210

## 07151500 CHIKASKIA RIVER NEAR CORBIN, KS

LOCATION.--Lat 37 deg 07 min 44 sec, long 97 deg 36 min 04 sec, in NW1/4 SW1/4 SW1/4 sec.36, T.33 S., R.3 W., Sumner County, Hydrologic Unit 11060005, on right bank on downstream side of bridge on State Highway 49, 1 mi upstream from Prairie Creek, 3 mi west of Corbin, and at mile 67.5.

DRAINAGE AREA.--794 sq mi.

PERIOD OF RECORD.--August 1950 to September 1965, October 1975 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,108.00 ft National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Mar. 23, 1951, wire-weight gage at same site and datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--24 years (water years 1951-65, 1976-84), 211 cu ft per sec, 152,900 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,100 cu ft per sec May 17, 1957, gage height, 22.31 ft; no flow at times in 1953-54, 1956, 1963, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 17 | 1100 | 2,740 | 7.89 | Mar. 28 | 1300 | 2,840 | 8.02 |
| Mar. 19 | 0400 | 5,420 | 10.91 | Apr. 8 | 1300 | 8,110 | 12.95 |
| Mar. 21 | 0600 | 4,210 | 9.65 | Apr. 12 | 1100 | 3,370 | 8.68 |
| Mar. 22 | 0800 | 4,170 | 9.60 | June 9 | 0600 | 7,280 | 12.44 |
| Mar. 24 | 0400 | *11,000 | 14.52 | | | | |

Minimum discharge, 3.2 cu ft per sec Sept. 13-15.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 45 | 81 | 99 | 65 | 141 | 113 | 984 | 679 | 136 | 89 | 18 | 7.7 |
| 2 | 42 | 83 | 95 | 80 | 128 | 111 | 816 | 451 | 132 | 85 | 17 | 9.7 |
| 3 | 40 | 84 | 96 | 95 | 120 | 109 | 1150 | 472 | 130 | 81 | 15 | 11 |
| 4 | 39 | 85 | 100 | 110 | 115 | 252 | 757 | 374 | 126 | 76 | 17 | 11 |
| 5 | 36 | 83 | 101 | 125 | 108 | 259 | 586 | 310 | 131 | 72 | 19 | 9.1 |
| 6 | 36 | 86 | 102 | 150 | 101 | 158 | 523 | 336 | 134 | 71 | 17 | 8.3 |
| 7 | 42 | 91 | 97 | 175 | 100 | 147 | 1100 | 353 | 124 | 76 | 19 | 6.8 |
| 8 | 47 | 101 | 95 | 200 | 99 | 143 | 6360 | 302 | 193 | 69 | 17 | 6.6 |
| 9 | 49 | 113 | 94 | 200 | 105 | 136 | 1750 | 270 | 4030 | 65 | 19 | 7.3 |
| 10 | 51 | 111 | 93 | 152 | 120 | 127 | 1450 | 255 | 608 | 60 | 20 | 6.8 |
| 11 | 58 | 111 | 92 | 150 | 128 | 125 | 1730 | 250 | 274 | 62 | 20 | 5.6 |
| 12 | 60 | 104 | 89 | 140 | 120 | 128 | 2390 | 240 | 208 | 69 | 21 | 4.3 |
| 13 | 56 | 95 | 91 | 130 | 111 | 140 | 1030 | 232 | 176 | 64 | 20 | 4.0 |
| 14 | 54 | 92 | 91 | 115 | 105 | 144 | 669 | 222 | 156 | 60 | 17 | 3.2 |
| 15 | 51 | 88 | 80 | 100 | 101 | 137 | 578 | 213 | 164 | 57 | 17 | 4.1 |
| 16 | 53 | 83 | 75 | 90 | 99 | 136 | 538 | 212 | 209 | 55 | 15 | 4.7 |
| 17 | 65 | 81 | 70 | 80 | 97 | 1510 | 504 | 202 | 200 | 59 | 14 | 10 |
| 18 | 121 | 81 | 62 | 70 | 98 | 1460 | 468 | 172 | 189 | 57 | 14 | 22 |
| 19 | 128 | 81 | 55 | 70 | 99 | 3640 | 419 | 165 | 152 | 55 | 12 | 28 |
| 20 | 110 | 79 | 50 | 70 | 98 | 1260 | 489 | 191 | 133 | 50 | 11 | 25 |
| 21 | 160 | 78 | 50 | 70 | 97 | 3300 | 792 | 369 | 126 | 46 | 12 | 23 |
| 22 | 216 | 78 | 50 | 70 | 95 | 3200 | 640 | 238 | 120 | 42 | 13 | 20 |
| 23 | 183 | 79 | 50 | 70 | 95 | 4580 | 503 | 208 | 118 | 38 | 13 | 19 |
| 24 | 130 | 81 | 50 | 80 | 95 | 8130 | 442 | 183 | 263 | 36 | 13 | 17 |
| 25 | 103 | 81 | 50 | 100 | 95 | 2450 | 398 | 170 | 198 | 33 | 13 | 15 |
| 26 | 90 | 84 | 50 | 125 | 100 | 1620 | 350 | 165 | 133 | 33 | 13 | 13 |
| 27 | 84 | 95 | 55 | 150 | 110 | 1400 | 580 | 158 | 120 | 31 | 11 | 17 |
| 28 | 80 | 148 | 60 | 175 | 120 | 2190 | 432 | 202 | 103 | 27 | 11 | 21 |
| 29 | 78 | 134 | 55 | 200 | 117 | 1130 | 311 | 184 | 99 | 23 | 11 | 26 |
| 30 | 78 | 111 | 55 | 200 | --- | 769 | 754 | 163 | 103 | 22 | 12 | 28 |
| 31 | 79 | --- | 55 | 193 | --- | 745 | --- | 144 | --- | 19 | 14 | --- |
| TOTAL | 2464 | 2782 | 2307 | 3790 | 3117 | 39754 | 29493 | 8085 | 8990 | 1682 | 475 | 394.2 |
| MEAN | 79.5 | 92.7 | 74.4 | 122 | 107 | 1282 | 983 | 261 | 300 | 54.3 | 15.3 | 13.1 |
| MAX | 216 | 148 | 102 | 200 | 141 | 8130 | 6360 | 679 | 4030 | 89 | 21 | 28 |
| MIN | 36 | 78 | 50 | 65 | 95 | 109 | 311 | 144 | 99 | 19 | 11 | 3.2 |
| AC-FT | 4890 | 5520 | 4580 | 7520 | 6180 | 78850 | 58500 | 16040 | 17830 | 3340 | 942 | 782 |

CAL YR 1983 TOTAL 105365.0 MEAN 289 MAX 8770 MIN 11 AC-FT 209000
WTR YR 1984 TOTAL 103333.2 MEAN 262 MAX 8130 MIN 3.2 AC-FT 205000

## 07155590 CIMARRON RIVER NEAR ELKHART, KS

LOCATION.--Lat 37 deg 07 min 30 sec, long 101 deg 53 min 50 sec, in NW1/4 NW1/4 sec.4, T.34 S., R.42 W., Morton County, Hydrologic Unit 11040002, Cimarron National Grasslands, on downstream side of bridge near left end on State Highway 27, 8.0 mi north of Elkhart, and at mile 499.4.

DRAINAGE AREA.--2,899 sq mi, of which 483 sq mi do not contribute directly to surface runoff.

PERIOD OF RECORD.--April 1971 to current year.

REVISED RECORDS.--WDR KS-84-1: 1983.

GAGE.--Water-stage recorder. Datum of gage is 3,381.89 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--13 years, 17.4 cu ft per sec, 12,610 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,500 cu ft per sec May 26, 1977, gage height, 9.17 ft; no flow most days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 560 cu ft per sec Aug. 25, gage height, 3.59 ft, no peak discharge above base of 1,000 cu ft per sec; no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | 5.4 | 5.4 | .00 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | 5.8 | 5.2 | .00 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | 6.1 | .67 | .00 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | 4.7 | .00 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .23 | 2.6 | .00 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.8 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.6 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .90 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .80 | .00 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | 5.8 | .00 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | 5.4 | .00 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .47 | .00 | .00 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.0 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.5 | .00 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .60 | .00 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | 1.6 | .00 | .00 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | 2.0 | .00 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | 1.0 | .00 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | 2.3 | .00 | .00 | .00 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.0 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 266 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 28 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.0 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .06 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | 5.7 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | 5.4 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | 3.7 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | 7.40 | 48.80 | 34.27 | .00 | .00 | 298.06 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .24 | 1.63 | 1.11 | .000 | .000 | 9.61 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | 3.7 | 6.1 | 5.8 | .00 | .00 | 266 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | 15 | 97 | 68 | .00 | .00 | 591 | .00 |

CAL YR 1983 TOTAL 159.85 MEAN .44 MAX 80 MIN .00 AC-FT 317
WTR YR 1984 TOTAL 388.53 MEAN 1.06 MAX 266 MIN .00 AC-FT 771

## 07155590 CIMARRON RIVER NEAR ELKHART, KS

LOCATION.--Lat 37 deg 07 min 30 sec, long 101 deg 53 min 50 sec, in NW1/4 NW1/4 sec.4, T.34 S., R.42 W., Morton County, Hydrologic Unit 11040002, Cimarron National Grasslands, on downstream side of bridge near left end on State Highway 27, 8.0 mi north of Elkhart, and at mile 499.4.

DRAINAGE AREA.--2,899 sq mi, of which 483 sq mi do not contribute directly to surface runoff.

PERIOD OF RECORD.--April 1971 to September 1983.

GAGE.--Water-stage recorder. Datum of gage is 3,381.89 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--12 years, 18.8 cu ft per sec, 13,620 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,500 cu ft per sec May 26, 1977, gage height, 9.17 ft; no flow most days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 788 cu ft per sec Apr. 4, gage height, 3.82 ft, no peak discharge above base of 1,000 cu ft per sec; no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .02 | .00 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .02 | .00 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | 22 | .02 | .00 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | 80 | .02 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | 12 | .01 | .00 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | 5.0 | .01 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | 1.0 | .01 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .20 | .01 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .03 | .01 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .02 | .00 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .02 | .00 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .01 | .00 | .00 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .01 | .00 | .00 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .01 | .00 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .01 | .00 | .00 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | 16 | .01 | .00 | .00 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .01 | .00 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .01 | .00 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | 17 | .00 | .00 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | 4.5 | .00 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | 1.4 | .00 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .35 | .00 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | --- | .00 | .10 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .03 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | 16.00 | 143.72 | .13 | .00 | .00 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .52 | 4.79 | .004 | .000 | .000 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | 16 | 80 | .02 | .00 | .00 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | 32 | 285 | .3 | .00 | .00 | .00 | .00 |

CAL YR 1982 TOTAL 6503.62 MEAN 17.8 MAX 1120 MIN .00 AC-FT 12900
WTR YR 1983 TOTAL 159.85 MEAN .44 MAX 80 MIN .00 AC-FT 317

## 07156010 NORTH FORK CIMARRON RIVER AT RICHFIELD, KS

LOCATION.--Lat 37 deg 15 min 30 sec, long 101 deg 46 min 30 sec, in SE1/4 SE1/4 sec.16, T.32 S., R.41 W., Morton County, Hydrologic Unit 11040003, at downstream side of bridge on State Highway 51, at Richfield, and at mile 85.8.

DRAINAGE AREA.--463 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1971 to current year.

REVISED RECORDS.--WDR KS-77: 1976.

GAGE.--Water-stage recorder. Datum of gage is 3,343.5 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--13 years, 5.89 cu ft per sec, 4,270 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,000 cu ft per sec Apr. 27, 1976, gage height, 17.50 ft; no flow most days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 221 cu ft per sec May 5, gage height, 9.00 ft, no other peak above base of 150 cu ft per sec; no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .15 | .28 | .00 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .21 | 7.5 | .00 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.6 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 131 | .00 | 5.5 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 75 | .00 | 5.1 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.0 | .00 | 1.2 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.1 | .00 | .14 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .37 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | 1.2 | .08 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .45 | .00 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .04 | .00 | .00 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .03 | .00 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .17 | .00 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .06 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .40 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .34 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .08 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .01 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | 2.05 | 228.02 | .00 | 11.94 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .068 | 7.36 | .000 | .39 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | 1.2 | 131 | .00 | 5.5 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | 4.1 | 452 | .00 | 24 | .00 | .00 |

CAL YR 1983 TOTAL 192.64 MEAN .53 MAX 48 MIN .00 AC-FT 382
WTR YR 1984 TOTAL 242.01 MEAN .66 MAX 131 MIN .00 AC-FT 480

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

## 07156100 SAND ARROYO CREEK NEAR JOHNSON, KS

LOCATION.--Lat 37 deg 30 min 00 sec, long 101 deg 45 min 40 sec, in SW1/4 NW1/4 sec.25, T.29 S., R.41 W., Stanton County, Hydrologic Unit 11040004, at bridge on State Highway 27, 4.3 mi south of Johnson, and at mile 22.5.

DRAINAGE AREA.--619 sq mi.

PERIOD OF RECORD.--April 1971 to current year. Prior to Oct. 1, 1972 published as "Sandy Arroyo Creek near Johnson."

GAGE.--Water-stage recorder. Datum of gage is 3,328.40 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--13 years, 0.270 cu ft per sec, 196 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 cu ft per sec July 8, 1982, gage height, 9.00 ft; no flow most days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 68 cu ft per sec May 6, gage height, 4.83 ft, no other peak above base of 50 cu ft per sec; no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .86 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.5 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.50 | .00 | .86 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .18 | .000 | .028 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.5 | .00 | .86 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 11 | .00 | 1.7 | .00 | .00 |

CAL YR 1983 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00
WTR YR 1984 TOTAL 6.36 MEAN .017 MAX 5.5 MIN .00 AC-FT 13

## 07156220 BEAR CREEK NEAR JOHNSON, KS

LOCATION.--Lat 37 deg 37 min 35 sec, long 101 deg 45 min 40 sec, in NW1/4 SW1/4 sec.12, T.28 S., R.41 W., Stanton County, Hydrologic Unit 11040005, at bridge on U.S. Highway 270, 3.5 mi north of Johnson, and at mile 42.0.

DRAINAGE AREA.--835 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,292.44 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--18 years, 4.27 cu ft per sec, 3,090 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 cu ft per sec July 8, 1932, gage height, 15.00 ft, from floodmark; no flow most days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51 cu ft per sec Sept. 1, gage height, 3.97 ft, no peak above base of 500 cu ft per sec; no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | 2.5 | .00 | .00 | .00 | .00 | 2.4 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | 12 | .00 | .00 | .00 | .00 | .86 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | 3.9 | .00 | .00 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.0 | .00 | .00 | .00 | .00 |
| 6 | .00 | 1.0 | .00 | .00 | .00 | .00 | .00 | 3.0 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | 3.5 | .00 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | 4.6 | .00 | .00 | .00 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.5 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.0 | 2.8 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | 1.0 | .00 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.0 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | 2.0 | .00 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | 5.0 | .00 | .00 | 2.0 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | 1.00 | .00 | .00 | .00 | 5.00 | 29.50 | 8.00 | 7.30 | .00 | .00 | 3.26 |
| MEAN | .000 | .033 | .000 | .000 | .000 | .16 | .98 | .26 | .24 | .000 | .000 | .11 |
| MAX | .00 | 1.0 | .00 | .00 | .00 | 5.0 | 12 | 3.0 | 2.8 | .00 | .00 | 2.4 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | 2.0 | .00 | .00 | .00 | 9.9 | 59 | 16 | 14 | .00 | .00 | 6.5 |

CAL YR 1983 TOTAL 66.00 MEAN .12 MAX 37 MIN .00 AC-FT 87
WTR YR 1984 TOTAL 54.06 MEAN .15 MAX 12 MIN .00 AC-FT 107

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

BEST COPY AVAILABLE

## 07157500 CROOKED CREEK NEAR NYE, KS

LOCATION.--Lat 37 deg 02 min 02 sec, long 100 deg 11 min 55 sec, in SE1/4 NW1/4 sec.1, T.35 S., R.27 W., Meade County, Hydrologic Unit 11040007, on right bank at downstream side of county road bridge, 11.5 mi west of Englewood, and at mile 14.0.

DRAINAGE AREA.--1,157 sq mi, of which 344 sq mi is probably noncontributing.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1942 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1211: 1950. WSP 1311: 1949(M).

GAGE.--Water-stage recorder. Datum of gage is 2,163.79 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 12, 1942, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for winter period, which are poor. Extensive diversion for irrigation above station.

AVERAGE DISCHARGE.--42 years, 37.8 cu ft per sec, 27,390 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 cu ft per sec May 20, 1955, gage height, 8.01 ft; right-bank gage, from rating curve extended above 2,400 cu ft per sec on basis of contracted-opening measurement of peak flow at site 10 mi upstream and a mean of slope-area measurement at gage site and discharge measurement at site 10 mi upstream at gage height, 7.59 ft; maximum stage, 9.00 ft Aug. 31, 1963, at left-bank gage, 8.2 ft, floodmark, at right-bank gage; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 564 cu ft per sec July 28, gage height, 4.71 ft, no peak above base of 1,400 cu ft per sec; minimum daily discharge, 0.19 cu ft per sec Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10 | 11 | 15 | 6.5 | 13 | 11 | 15 | 16 | 7.7 | 10 | 20 | .64 |
| 2 | 9.7 | 11 | 14 | 7.5 | 12 | 10 | 23 | 18 | 7.7 | 9.6 | 13 | 1.9 |
| 3 | 9.5 | 11 | 14 | 9.0 | 12 | 11 | 22 | 18 | 6.7 | 8.0 | 12 | 3.0 |
| 4 | 9.2 | 11 | 15 | 12 | 12 | 11 | 20 | 18 | 6.5 | 8.2 | 12 | 2.0 |
| 5 | 8.8 | 11 | 14 | 16 | 11 | 11 | 19 | 19 | 5.3 | 7.4 | 8.3 | 1.7 |
| 6 | 8.6 | 11 | 14 | 22 | 13 | 11 | 18 | 19 | 4.8 | 6.6 | 5.3 | 1.5 |
| 7 | 8.6 | 12 | 15 | 25 | 11 | 11 | 16 | 31 | 4.0 | 5.4 | 4.3 | 1.3 |
| 8 | 8.3 | 12 | 15 | 25 | 11 | 12 | 14 | 29 | 3.4 | 3.7 | 8.4 | .64 |
| 9 | 8.2 | 13 | 14 | 18 | 11 | 12 | 14 | 28 | 3.0 | 2.9 | 14 | .78 |
| 10 | 9.2 | 14 | 14 | 15 | 11 | 11 | 13 | 27 | 2.9 | 2.3 | 9.1 | .77 |
| 11 | 8.5 | 13 | 13 | 14 | 11 | 11 | 13 | 22 | 3.2 | 2.1 | 6.8 | .41 |
| 12 | 9.5 | 13 | 13 | 13 | 9.7 | 11 | 11 | 19 | 2.8 | 2.0 | 5.5 | .26 |
| 13 | 8.5 | 13 | 11 | 12 | 10 | 10 | 11 | 17 | 2.9 | 1.8 | 6.4 | .19 |
| 14 | 7.5 | 13 | 11 | 10 | 11 | 9.2 | 11 | 22 | 3.2 | 1.4 | 8.2 | .44 |
| 15 | 8.9 | 13 | 11 | 8.5 | 11 | 9.0 | 10 | 29 | 3.9 | 1.3 | 7.8 | .87 |
| 16 | 8.4 | 13 | 11 | 7.5 | 12 | 11 | 11 | 32 | 17 | 2.2 | 6.8 | .96 |
| 17 | 8.9 | 13 | 9.0 | 6.5 | 12 | 12 | 12 | 32 | 30 | 1.8 | 5.4 | 1.1 |
| 18 | 9.4 | 13 | 7.0 | 6.0 | 12 | 11 | 11 | 32 | 38 | 1.7 | 3.6 | 1.1 |
| 19 | 9.9 | 14 | 5.5 | 6.0 | 13 | 12 | 11 | 27 | 45 | 1.4 | 3.4 | .99 |
| 20 | 11 | 15 | 4.5 | 6.0 | 13 | 11 | 12 | 22 | 49 | 1.3 | 3.4 | .89 |
| 21 | 13 | 14 | 4.5 | 6.0 | 13 | 10 | 15 | 19 | 42 | 1.2 | 3.0 | .80 |
| 22 | 13 | 14 | 4.5 | 6.5 | 12 | 11 | 13 | 16 | 33 | 1.1 | 2.4 | .91 |
| 23 | 12 | 15 | 4.5 | 7.5 | 11 | 15 | 12 | 14 | 24 | .90 | 2.0 | .32 |
| 24 | 11 | 16 | 4.5 | 9.0 | 11 | 14 | 11 | 13 | 19 | .76 | 1.8 | .63 |
| 25 | 11 | 16 | 4.5 | 11 | 11 | 14 | 9.7 | 12 | 16 | .83 | 2.2 | .84 |
| 26 | 11 | 17 | 4.5 | 15 | 11 | 13 | 9.2 | 12 | 33 | .72 | 1.7 | 1.5 |
| 27 | 11 | 15 | 5.5 | 20 | 11 | 13 | 9.6 | 11 | 19 | .57 | 2.0 | 2.3 |
| 28 | 11 | 15 | 5.0 | 20 | 11 | 13 | 9.5 | 10 | 18 | 129 | 1.4 | 2.6 |
| 29 | 11 | 15 | 5.0 | 15 | 12 | 13 | 15 | 9.7 | 15 | 51 | 1.1 | 3.6 |
| 30 | 11 | 13 | 5.0 | 14 | --- | 13 | 14 | 8.7 | 12 | 32 | .94 | 3.9 |
| 31 | 11 | --- | 5.5 | 13 | --- | 15 | --- | 7.5 | --- | 26 | .71 | --- |
| TOTAL | 306.6 | 400 | 293.0 | 382.5 | 334.7 | 362.2 | 405.0 | 609.9 | 478.0 | 324.98 | 182.95 | 39.34 |
| MEAN | 9.89 | 13.3 | 9.45 | 12.3 | 11.5 | 11.7 | 13.5 | 19.7 | 15.9 | 10.5 | 5.90 | 1.31 |
| MAX | 13 | 17 | 15 | 25 | 13 | 15 | 23 | 32 | 49 | 129 | 20 | 3.9 |
| MIN | 7.5 | 11 | 4.5 | 6.0 | 9.7 | 9.0 | 9.2 | 7.5 | 2.8 | .57 | .71 | .19 |
| AC-FT | 608 | 793 | 581 | 759 | 664 | 718 | 803 | 1210 | 948 | 645 | 363 | 78 |

CAL YR 1983 TOTAL 5373.26 MEAN 14.7 MAX 323 MIN .82 AC-FT 10660
WTR YR 1984 TOTAL 4119.17 MEAN 11.3 MAX 129 MIN .19 AC-FT 8170

## 07157500 CROOKED CREEK NEAR NYE, KS--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| DEC | | | | |
| 01... | 12:05 | 15 | 281 | 11 |
| JUN | | | | |
| 20... | 12:30 | 50 | 300 | 40 |

### PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM |
|---|---|---|---|---|---|
| DEC | | | | | |
| 01... | 47 | 51 | 56 | 96 | 100 |

## 07157900 CAVALRY CREEK AT COLDWATER, KS

LOCATION.--Lat 37 deg 16 min 00 sec, long 99 deg 20 min 40 sec, in NE1/4 NE1/4 sec.14, T.32 S., R.19 W., Comanche County, Hydrologic Unit 11040008, at downstream side of county highway bridge, 1.0 mi west of Coldwater, and at mile 18.3.

DRAINAGE AREA.--39 sq mi.

PERIOD OF RECORD.--Water years 1967 to current year.

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| OCT | | | | |
| 13... | 08:55 | 1.4 | 87 | 0.33 |
| DEC | | | | |
| 01... | 14:35 | 1.5 | 13 | 0.05 |
| SEP | | | | |
| 24... | 12:30 | 0.61 | 7 | 0.01 |

### PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | BED MAT. FALL DIAM. % FINER THAN .062 MM | BED MAT. FALL DIAM. % FINER THAN .125 MM | BED MAT. FALL DIAM. % FINER THAN .250 MM | BED MAT. FALL DIAM. % FINER THAN .500 MM | BED MAT. FALL DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | | | | |
| 26... | 11:50 | 2 | 6 | 18 | 33 | 42 | 51 | 65 | 76 | 86 | 100 |

## 07165900 TORONTO LAKE NEAR TORONTO, KS

LOCATION.--Lat 37 deg 44 min 30 sec, long 95 deg 56 min 00 sec, in NW1/4 SE1/4 sec.36, T.26 S., R.13 E., Woodson County, Hydrologic Unit 11070101, in control tower of dam on Verdigris River, 4.0 mi southeast of town of Toronto, and at mile 271.5.

DRAINAGE AREA.--730 sq mi.

PERIOD OF RECORD.--March 1960 to current year. Prior to October 1971 published as "Toronto Reservoir."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Mar. 15, 1960. Spillway is a concrete, gravity, ogee-weir type. Elevation of the top of dam, 946.0 ft. Elevation of the crest of spillway 906.0 ft. Maximum pool is 316,900 acre-ft at elevation 940.0 ft consisting of the following: Minimum pool, 9,170 acre-ft at elevation 896.0 ft; conservation pool, 11,840 acre-ft between elevations 896.0 ft and 901.5 ft; flood-control pool, 179,800 acre-ft between elevations 901.5 ft and 931.0 ft; uncontrolled storage, 116,100 acre-ft between elevations 931.0 ft and 940.0 ft. Reservoir is used for flood control, conservation, pollution abatement and supplemental water supply storage. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 928.35 ft Sept. 16, 1961, contents, 170,000 acre-ft; minimum since conservation pool was first filled, 897.25 ft Mar. 30, 1967, contents, 13,480 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 914.69 ft Mar. 21, contents, 73,550 acre-ft; minimum, 899.81 ft Sept. 30, contents, 16,780 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made by Corps of Engineers in 1977)

| | | | |
|---|---|---|---|
| 895 | 7,580 | 910 | 50,570 |
| 900 | 17,220 | 915 | 75,200 |
| 905 | 31,170 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 900.57 | 900.87 | 902.71 | 901.64 | 901.98 | 901.96 | 906.69 | 902.40 | 902.15 | 902.14 | 901.26 | 900.52 |
| 2 | 900.54 | 900.89 | 902.47 | 901.64 | 901.94 | 901.76 | 905.62 | 902.80 | 902.04 | 902.05 | 901.24 | 900.51 |
| 3 | 900.55 | 900.90 | 902.37 | 901.65 | 901.89 | 901.87 | 905.55 | 906.00 | 901.89 | 901.96 | 901.23 | 900.47 |
| 4 | 900.53 | 900.93 | 902.46 | 901.67 | 901.82 | 902.72 | 904.68 | 905.65 | 901.76 | 901.89 | 901.21 | 900.44 |
| 5 | 900.50 | 900.93 | 902.41 | 901.71 | 901.74 | 903.12 | 903.41 | 904.80 | 901.70 | 901.77 | 901.18 | 900.40 |
| 6 | 900.49 | 900.95 | 902.21 | 901.81 | 901.64 | 902.75 | 902.55 | 903.80 | 901.73 | 901.73 | 901.17 | 900.34 |
| 7 | 900.47 | 900.95 | 902.01 | 901.96 | 901.55 | 902.27 | 902.57 | 902.70 | 901.71 | 901.72 | 901.16 | 900.25 |
| 8 | 900.47 | 900.94 | 901.76 | 902.13 | 901.52 | 901.79 | 907.88 | 901.96 | 903.35 | 901.65 | 901.13 | 900.30 |
| 9 | 900.45 | 901.13 | 901.69 | 902.20 | 901.62 | 901.70 | 909.93 | 901.85 | 911.93 | 901.70 | 901.11 | 900.27 |
| 10 | 900.42 | 901.09 | 901.73 | 902.19 | 901.71 | 901.76 | 910.65 | 901.85 | 912.92 | 901.70 | 901.09 | 900.25 |
| 11 | 900.51 | 901.16 | 901.76 | 902.15 | 901.80 | 901.78 | 911.05 | 901.85 | 912.92 | 901.70 | 901.06 | 900.22 |
| 12 | 900.48 | 901.22 | 901.76 | 902.09 | 901.87 | 901.96 | 913.88 | 901.86 | 912.06 | 901.68 | 901.04 | 900.19 |
| 13 | 900.45 | 901.22 | 901.79 | 902.03 | 901.90 | 901.95 | 913.78 | 901.87 | 911.10 | 901.67 | 901.01 | 900.18 |
| 14 | 900.38 | 901.22 | 901.80 | 901.93 | 901.82 | 901.82 | 913.05 | 901.83 | 910.01 | 901.63 | 900.98 | 900.15 |
| 15 | 900.41 | 901.24 | 901.77 | 901.88 | 901.75 | 901.75 | 912.17 | 901.79 | 908.93 | 901.63 | 900.96 | 900.11 |
| 16 | 900.43 | 901.26 | 901.74 | 901.78 | 901.67 | 901.87 | 911.19 | 901.73 | 907.78 | 901.62 | 900.94 | 900.07 |
| 17 | 900.44 | 901.28 | 901.71 | 901.69 | 901.67 | 904.34 | 910.14 | 901.67 | 906.78 | 901.60 | 900.90 | 900.07 |
| 18 | 900.42 | 901.30 | 901.70 | 901.60 | 901.74 | 907.75 | 909.02 | 901.66 | 906.49 | 901.56 | 900.89 | 900.06 |
| 19 | 900.55 | 901.35 | 901.67 | 901.57 | 901.76 | 912.70 | 907.83 | 901.98 | 905.58 | 901.53 | 900.86 | 900.04 |
| 20 | 900.77 | 901.37 | 901.65 | 901.58 | 901.77 | 914.12 | 907.40 | 902.22 | 904.54 | 901.52 | 900.82 | 900.02 |
| 21 | 900.84 | 901.37 | 901.61 | 901.59 | 901.78 | 914.56 | 909.69 | 902.27 | 903.31 | 901.49 | 900.82 | 899.96 |
| 22 | 900.87 | 901.45 | 901.61 | 901.60 | 901.78 | 914.05 | 909.60 | 902.07 | 902.54 | 901.47 | 900.88 | 899.98 |
| 23 | 900.88 | 901.49 | 901.61 | 901.62 | 901.79 | 913.50 | 908.85 | 901.86 | 905.43 | 901.46 | 900.85 | 899.95 |
| 24 | 900.89 | 901.56 | 901.62 | 901.64 | 901.78 | 913.54 | 907.89 | 901.75 | 905.81 | 901.45 | 900.81 | 899.93 |
| 25 | 900.87 | 901.60 | 901.62 | 901.68 | 901.74 | 912.91 | 906.75 | 901.79 | 905.63 | 901.42 | 900.77 | 899.91 |
| 26 | 900.87 | 901.68 | 901.62 | 901.78 | 902.20 | 912.37 | 905.64 | 901.76 | 904.90 | 901.41 | 900.72 | 899.87 |
| 27 | 900.84 | 902.28 | 901.63 | 901.89 | 902.79 | 911.97 | 904.66 | 902.17 | 903.75 | 901.39 | 900.70 | 899.89 |
| 28 | 900.85 | 903.09 | 901.64 | 901.97 | 902.87 | 911.08 | 903.85 | 902.35 | 902.63 | 901.36 | 900.66 | 899.87 |
| 29 | 900.84 | 903.17 | 901.64 | 902.01 | 902.44 | 910.15 | 903.37 | 902.46 | 902.27 | 901.34 | 900.65 | 899.84 |
| 30 | 900.85 | 902.97 | 901.64 | 902.03 | --- | 909.08 | 902.91 | 902.45 | 902.20 | 901.31 | 900.61 | 899.81 |
| 31 | 900.83 | --- | 901.64 | 902.01 | --- | 907.92 | --- | 902.26 | --- | 901.30 | 900.57 | --- |
| MEAN | 900.62 | 901.43 | 901.84 | 901.83 | 901.87 | 906.54 | 907.74 | 902.43 | 905.53 | 901.61 | 900.94 | 900.13 |
| MAX | 900.89 | 903.17 | 902.71 | 902.20 | 902.87 | 914.56 | 913.88 | 906.00 | 912.92 | 902.14 | 901.26 | 900.52 |
| MIN | 900.38 | 900.87 | 901.61 | 901.57 | 901.52 | 901.70 | 902.55 | 901.66 | 901.70 | 901.30 | 900.57 | 899.81 |
| (+) | 19,270 | 25,070 | 21,380 | 22,390 | 23,580 | 41,900 | 24,900 | 23,080 | 22,910 | 20,480 | 18,610 | 16,780 |
| (#) | +560 | +5,800 | -3,690 | +1,010 | +1,190 | +18,320 | -17,000 | -1,820 | -170 | -2,430 | -1,870 | -1,830 |

CAL YR 1983 ........................ (#) -10,310
WTR YR 1984 ........................ (#) -1,930

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 07166000 VERDIGRIS RIVER NEAR COYVILLE, KS

LOCATION.--Lat 37 deg 42 min 20 sec, long 95 deg 54 min 20 sec, in SW1/4 SW1/4 sec.8, T.27 S., R.14 E., Wilson County, Hydrologic Unit 11070101, on county highway bridge, 1.2 mi upstream from Meadow Creek, 1.5 mi northwest of Coyville, 2.5 mi downstream from Pig Creek, and at mile 268.0.

DRAINAGE AREA.--747 sq mi.

PERIOD OF RECORD.--August 1939 to current year.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1211: 1945(M), 1948(M). WSP 1241: 1941-42, 1943(M).

GAGE.--Water-stage recorder. Datum of gage is 845.28 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Jan. 25, 1952, nonrecording gage and Jan. 26, 1952, to July 17, 1961, water-stage recorder, both 100 ft upstream at same datum. July 18, 1961, to Jan. 28, 1962, nonrecording gage at present site and datum. Since Jan. 26, 1961, auxiliary nonrecording gage 3.2 mi downstream.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated since Mar. 15, 1960, by Toronto Lake, 3.5 mi upstream (see sta 07165900).

AVERAGE DISCHARGE.--45 years, 495 cu ft per sec, 358,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 cu ft per sec July 12, 1951, gage height, 41.25 ft, from graph based on gage readings, from rating curve extended above 46,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times in 1939-41, 1953-58, 1977, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,890 cu ft per sec June 9, gage height, 27.21 ft; minimum discharge, 2.7 cu ft per sec Oct. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.2 | 8.9 | 610 | 34 | 205 | 1130 | 3030 | 1470 | 265 | 162 | 3.9 | 13 |
| 2 | 9.2 | 9.3 | 604 | 34 | 206 | 682 | 3020 | 1190 | 264 | 162 | 4.1 | 13 |
| 3 | 8.9 | 9.0 | 623 | 33 | 205 | 178 | 3110 | 1560 | 262 | 161 | 4.1 | 13 |
| 4 | 9.2 | 9.2 | 618 | 33 | 204 | 240 | 2970 | 2220 | 263 | 161 | 4.2 | 13 |
| 5 | 4.4 | 9.2 | 599 | 32 | 204 | 628 | 2900 | 2420 | 139 | 161 | 4.4 | 8.2 |
| 6 | 3.6 | 9.2 | 592 | 34 | 209 | 1320 | 2170 | 2380 | 11 | 136 | 4.5 | 7.7 |
| 7 | 7.8 | 9.3 | 589 | 34 | 204 | 1310 | 1080 | 2340 | 14 | 16 | 5.5 | 7.1 |
| 8 | 9.2 | 9.2 | 586 | 33 | 116 | 1080 | 1840 | 1620 | 949 | 15 | 6.9 | 7.1 |
| 9 | 8.9 | 9.7 | 335 | 134 | 30 | 508 | 1310 | 571 | 4160 | 15 | 7.2 | 7.3 |
| 10 | 8.9 | 10 | 96 | 209 | 46 | 173 | 1330 | 342 | 371 | 15 | 7.5 | 7.6 |
| 11 | 10 | 9.6 | 96 | 208 | 93 | 172 | 1960 | 317 | 915 | 15 | 7.5 | 7.8 |
| 12 | 8.6 | 11 | 96 | 207 | 91 | 408 | 1410 | 247 | 2660 | 14 | 7.5 | 7.2 |
| 13 | 8.2 | 11 | 96 | 206 | 89 | 585 | 2550 | 247 | 2630 | 14 | 7.5 | 8.0 |
| 14 | 8.6 | 11 | 96 | 205 | 181 | 566 | 3010 | 244 | 2590 | 14 | 7.0 | 8.2 |
| 15 | 9.2 | 10 | 95 | 206 | 278 | 564 | 2980 | 243 | 2540 | 14 | 6.8 | 8.2 |
| 16 | 9.5 | 9.9 | 95 | 205 | 277 | 404 | 2940 | 244 | 2500 | 14 | 6.8 | 8.2 |
| 17 | 8.9 | 10 | 95 | 203 | 178 | 442 | 2900 | 225 | 2450 | 14 | 7.0 | 8.5 |
| 18 | 8.9 | 10 | 95 | 202 | 85 | 1490 | 2850 | 150 | 2440 | 14 | 7.1 | 8.7 |
| 19 | 11 | 11 | 95 | 115 | 85 | 811 | 2810 | 90 | 2400 | 13 | 7.1 | 8.7 |
| 20 | 14 | 11 | 95 | 29 | 85 | 735 | 2900 | 188 | 2370 | 5.2 | 7.4 | 8.6 |
| 21 | 35 | 11 | 95 | 31 | 84 | 2230 | 3520 | 191 | 2320 | 4.2 | 13 | 8.4 |
| 22 | 12 | 12 | 65 | 31 | 85 | 3330 | 2940 | 513 | 1640 | 4.1 | 16 | 8.4 |
| 23 | 9.2 | 12 | 35 | 28 | 85 | 3360 | 2870 | 466 | 450 | 4.1 | 13 | 8.7 |
| 24 | 9.0 | 14 | 35 | 28 | 84 | 3590 | 2820 | 243 | 440 | 4.2 | 13 | 8.4 |
| 25 | 8.6 | 14 | 35 | 28 | 85 | 3360 | 2780 | 126 | 360 | 4.4 | 13 | 7.2 |
| 26 | 8.5 | 13 | 35 | 35 | 140 | 3300 | 2740 | 87 | 1500 | 4.2 | 13 | 7.9 |
| 27 | 8.3 | 68 | 35 | 123 | 177 | 3260 | 2260 | 154 | 2050 | 4.1 | 13 | 8.7 |
| 28 | 8.6 | 36 | 35 | 206 | 500 | 3210 | 1710 | 34 | 1960 | 4.0 | 13 | 8.9 |
| 29 | 8.6 | 365 | 35 | 206 | 1150 | 3170 | 1700 | 16 | 745 | 4.4 | 13 | 8.6 |
| 30 | 8.6 | 621 | 34 | 206 | --- | 3120 | 1700 | 136 | 162 | 4.5 | 13 | 8.6 |
| 31 | 8.6 | --- | 34 | 205 | --- | 3070 | --- | 335 | --- | 3.9 | 13 | --- |
| TOTAL | 301.2 | 1363.5 | 6679 | 3523 | 5461 | 48426 | 74110 | 20609 | 41820 | 1181.3 | 270.0 | 262.9 |
| MEAN | 9.72 | 45.5 | 215 | 114 | 188 | 1562 | 2470 | 665 | 1394 | 38.1 | 8.71 | 8.76 |
| MAX | 35 | 621 | 623 | 209 | 1150 | 3590 | 3520 | 2420 | 4160 | 162 | 16 | 13 |
| MIN | 3.6 | 8.9 | 34 | 28 | 30 | 172 | 1080 | 16 | 11 | 3.9 | 3.9 | 7.1 |
| AC-FT | 597 | 2700 | 13250 | 6990 | 10830 | 96050 | 147000 | 40880 | 82950 | 2340 | 536 | 521 |

CAL YR 1983 TOTAL 183503.9 MEAN 503 MAX 6020 MIN 3.6 AC-FT 364000
WTR YR 1984 TOTAL 204006.9 MEAN 557 MAX 4160 MIN 3.6 AC-FT 404600

BEST COPY AVAILABLE

## 07166500 VERDIGRIS RIVER NEAR ALTOONA, KS

LOCATION.--Lat 37 deg 29 min 26 sec, long 95 deg 40 min 49 sec, in SE1/4 NE1/4 SW1/4 sec.29, T.29 S., R.16 E., Wilson County, Hydrologic Unit 11070101, on downstream side of highway bridge, 2.5 mi southwest of Altoona, 2.5 mi downstream from Big Cedar Creek, and at mile 227.9.

DRAINAGE AREA.--1,138 sq mi.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 780.18 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Sept. 9, 1944, nonrecording gage at same site and datum.

REMARKS.--Records fair except for days of no gage-height record July 10 to Aug. 6, which are poor. Considerable regulation since 1960 by Toronto Lake 43.6 mi upstream (see sta 07165900). Diversion above station from Altoona Reservoir for municipal supply of Altoona. Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--46 years, 709 cu ft per sec, 513,700 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,000 cu ft per sec July 12, 1951, gage height, 31.09; no flow at times in 1939-41, 1952-57, 1978, 1980-81, 1983, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,300 cu ft per sec June 10, gage height, 24.08 ft; minimum, no flow July 29 to Aug. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16 | 14 | 640 | 49 | 226 | 1400 | 3400 | 2040 | 370 | 360 | .00 | 10 |
| 2 | 11 | 13 | 617 | 49 | 221 | 1350 | 3540 | 1550 | 301 | 252 | .00 | 14 |
| 3 | 8.2 | 13 | 733 | 51 | 217 | 690 | 3970 | 2060 | 287 | 224 | .00 | 20 |
| 4 | 7.0 | 13 | 993 | 52 | 213 | 1280 | 3680 | 2260 | 279 | 215 | .00 | 17 |
| 5 | 5.5 | 12 | 809 | 56 | 207 | 975 | 3270 | 2510 | 278 | 209 | .00 | 16 |
| 6 | 4.5 | 12 | 691 | 67 | 200 | 1140 | 3110 | 2650 | 209 | 204 | .00 | 13 |
| 7 | 7.8 | 13 | 642 | 83 | 202 | 1540 | 1970 | 2630 | 68 | 200 | .00 | 11 |
| 8 | 7.4 | 16 | 613 | 89 | 201 | 1470 | 4420 | 2480 | 1990 | 159 | .00 | 8.5 |
| 9 | 5.2 | 19 | 598 | 91 | 160 | 1140 | 6150 | 1420 | 7470 | 85 | .00 | 6.7 |
| 10 | 4.8 | 22 | 331 | 101 | 73 | 507 | 2570 | 726 | 10900 | 55 | .00 | 4.4 |
| 11 | 7.0 | 23 | 126 | 240 | 96 | 237 | 2870 | 446 | 7510 | 35 | .00 | 5.4 |
| 12 | 9.1 | 22 | 119 | 224 | 239 | 432 | 4470 | 397 | 1870 | 20 | .00 | 7.7 |
| 13 | 8.2 | 26 | 121 | 200 | 199 | 1170 | 2800 | 325 | 2820 | 18 | .00 | 9.2 |
| 14 | 7.8 | 32 | 117 | 225 | 153 | 929 | 3160 | 321 | 2740 | 17 | .00 | 9.7 |
| 15 | 7.0 | 28 | 113 | 205 | 207 | 790 | 3270 | 321 | 2680 | 16 | .00 | 9.2 |
| 16 | 7.4 | 23 | 107 | 220 | 308 | 756 | 3190 | 321 | 2620 | 15 | .00 | 8.6 |
| 17 | 13 | 20 | 97 | 219 | 308 | 2050 | 3110 | 314 | 2560 | 15 | .00 | 10 |
| 18 | 10 | 19 | 96 | 209 | 230 | 2960 | 3050 | 293 | 2550 | 15 | .04 | 12 |
| 19 | 10 | 21 | 97 | 220 | 129 | 8620 | 2990 | 227 | 2550 | 15 | .17 | 12 |
| 20 | 117 | 21 | 97 | 220 | 121 | 5270 | 3010 | 159 | 2530 | 15 | .60 | 12 |
| 21 | 1060 | 21 | 108 | 220 | 117 | 1880 | 6070 | 233 | 2560 | 15 | .73 | 35 |
| 22 | 417 | 27 | 110 | 220 | 114 | 3080 | 5410 | 254 | 2390 | 10 | 3.1 | 28 |
| 23 | 137 | 66 | 109 | 105 | 110 | 3750 | 3440 | 730 | 1380 | 5.0 | 10 | 30 |
| 24 | 70 | 97 | 107 | 48 | 109 | 5580 | 3140 | 484 | 836 | 4.0 | 18 | 32 |
| 25 | 47 | 69 | 107 | 54 | 107 | 5330 | 3020 | 265 | 711 | 3.0 | 17 | 32 |
| 26 | 33 | 53 | 107 | 59 | 610 | 4070 | 2930 | 163 | 980 | 2.0 | 16 | 49 |
| 27 | 24 | 143 | 70 | 74 | 1700 | 4030 | 2870 | 2850 | 1810 | 1.0 | 16 | 36 |
| 28 | 19 | 459 | 49 | 141 | 1430 | 3770 | 2140 | 1620 | 2190 | .50 | 14 | 36 |
| 29 | 17 | 275 | 50 | 266 | 1140 | 3590 | 3390 | 542 | 1840 | .00 | 13 | 35 |
| 30 | 16 | 385 | 50 | 250 | --- | 3480 | 2820 | 247 | 917 | .00 | 12 | 40 |
| 31 | 15 | --- | 50 | 240 | --- | 3410 | --- | 174 | --- | .00 | 11 | --- |
| TOTAL | 2128.9 | 1978 | 8674 | 4547 | 9352 | 76676 | 103230 | 31012 | 68196 | 2184.50 | 131.64 | 569.4 |
| MEAN | 68.7 | 65.9 | 280 | 147 | 322 | 2473 | 3441 | 1000 | 2273 | 70.5 | 4.25 | 19.0 |
| MAX | 1060 | 459 | 993 | 266 | 1700 | 8620 | 6150 | 2850 | 10900 | 360 | 18 | 49 |
| MIN | 4.5 | 12 | 49 | 48 | 78 | 237 | 1970 | 159 | 68 | .00 | .00 | 4.4 |
| AC-FT | 4220 | 3920 | 17200 | 9020 | 18550 | 152100 | 204800 | 61510 | 135300 | 4330 | 261 | 1130 |

CAL YR 1983 TOTAL 295945.50 MEAN 811 MAX 9740 MIN .00 AC-FT 587000
WTR YR 1984 TOTAL 308679.44 MEAN 843 MAX 10900 MIN .00 AC-FT 612300

## 07167500 OTTER CREEK AT CLIMAX, KS

LOCATION.--Lat 37 deg 42 min 30 sec, long 96 deg 13 min 30 sec, in SW1/4 SE1/4 sec.8, T.27 S., R.11 E., Greenwood County, Hydrologic Unit 11070102, on right bank at downstream side of bridge on State Highway 99, 0.5 mi south of Climax, 5.2 mi upstream from mouth, and 5.5 mi downstream from South Branch.

DRAINAGE AREA.--129 sq mi.

PERIOD OF RECORD.--August 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 977.76 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records fair except those for period of no gage-height record, Dec. 9 to Feb. 21, which are poor.

AVERAGE DISCHARGE.--38 years, 76.3 cu ft per sec, 55,280 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 107,000 cu ft per sec July 3, 1976, gage height, 31.47 ft; no flow at times in 1953-57, 1963-68, 1971-72, 1976-77, 1979-82.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| May 27 | 1600 | 5,120 | 14.95 | June 9 | 0600 | *7,980 | 18.96 |
| June 8 | 0800 | 5,340 | 15.29 | | | | |

Minimum discharge, 0.04 cu ft per sec Sept. 7, 8.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .77 | 2.8 | 6.5 | 5.5 | 12 | 56 | 164 | 105 | 73 | 18 | 2.4 | .57 |
| 2 | .80 | 3.7 | 6.8 | 6.0 | 11 | 53 | 177 | 149 | 61 | 17 | 2.4 | .54 |
| 3 | .80 | 3.5 | 12 | 7.0 | 11 | 46 | 410 | 434 | 56 | 15 | 2.2 | .56 |
| 4 | .85 | 3.0 | 28 | 8.0 | 10 | 642 | 175 | 159 | 54 | 14 | 2.1 | .60 |
| 5 | .91 | 3.1 | 19 | 9.0 | 9.0 | 152 | 133 | 123 | 48 | 13 | 2.0 | .46 |
| 6 | .82 | 3.3 | 12 | 10 | 8.5 | 98 | 116 | 132 | 42 | 12 | 2.0 | .37 |
| 7 | .75 | 3.4 | 11 | 11 | 8.5 | 80 | 191 | 113 | 37 | 11 | 2.6 | .16 |
| 8 | .70 | 3.4 | 9.8 | 12 | 9.0 | 66 | 1930 | 92 | 2160 | 11 | 3.0 | .12 |
| 9 | .72 | 3.5 | 9.0 | 12 | 10 | 56 | 464 | 79 | 4190 | 9.1 | 2.9 | .43 |
| 10 | .80 | 4.2 | 8.5 | 11 | 12 | 53 | 607 | 72 | 465 | 8.4 | 2.4 | .55 |
| 11 | 1.2 | 3.8 | 8.0 | 10 | 14 | 48 | 426 | 65 | 214 | 7.7 | 1.9 | .49 |
| 12 | 1.4 | 3.5 | 7.6 | 9.0 | 14 | 124 | 1210 | 58 | 148 | 7.2 | 1.7 | .38 |
| 13 | 1.2 | 3.3 | 7.2 | 8.0 | 14 | 144 | 245 | 54 | 113 | 6.8 | 1.5 | .29 |
| 14 | .95 | 3.3 | 6.8 | 7.0 | 14 | 85 | 167 | 49 | 93 | 6.2 | 1.3 | .34 |
| 15 | .92 | 3.5 | 6.4 | 6.8 | 14 | 74 | 142 | 82 | 77 | 5.8 | 1.0 | .37 |
| 16 | .78 | 3.3 | 6.0 | 6.6 | 13 | 66 | 126 | 93 | 63 | 5.5 | 1.0 | .33 |
| 17 | .80 | 3.4 | 5.8 | 6.5 | 13 | 732 | 111 | 59 | 142 | 5.4 | .89 | .31 |
| 18 | .70 | 3.5 | 5.7 | 6.5 | 14 | 1460 | 100 | 50 | 290 | 5.2 | .76 | .51 |
| 19 | 1.9 | 3.6 | 5.6 | 6.5 | 15 | 1840 | 92 | 156 | 102 | 4.9 | .71 | .45 |
| 20 | 5.7 | 3.8 | 5.5 | 6.6 | 16 | 524 | 275 | 749 | 131 | 4.6 | .61 | .37 |
| 21 | 11 | 3.8 | 5.4 | 6.8 | 15 | 337 | 1290 | 128 | 428 | 4.5 | .70 | .31 |
| 22 | 2.9 | 4.9 | 5.3 | 7.0 | 15 | 184 | 246 | 83 | 85 | 4.0 | 2.8 | .26 |
| 23 | 1.8 | 7.3 | 5.2 | 7.2 | 14 | 275 | 168 | 71 | 65 | 3.8 | 2.1 | .28 |
| 24 | 1.7 | 6.9 | 5.1 | 7.5 | 14 | 1150 | 135 | 59 | 56 | 3.7 | 1.6 | .34 |
| 25 | 1.4 | 5.5 | 5.0 | 8.0 | 13 | 299 | 116 | 52 | 41 | 3.5 | 1.2 | .41 |
| 26 | 1.3 | 5.2 | 5.0 | 10 | 76 | 373 | 103 | 49 | 34 | 3.1 | 1.1 | .44 |
| 27 | 1.3 | 32 | 5.2 | 12 | 218 | 299 | 94 | 1620 | 29 | 2.9 | .87 | .62 |
| 28 | 1.8 | 28 | 5.5 | 14 | 131 | 257 | 79 | 327 | 25 | 3.0 | .73 | .78 |
| 29 | 1.9 | 12 | 6.0 | 14 | 66 | 232 | 270 | 143 | 22 | 2.8 | .70 | .56 |
| 30 | 2.7 | 8.3 | 5.5 | 14 | --- | 151 | 201 | 107 | 20 | 2.6 | .58 | .52 |
| 31 | 2.9 | --- | 5.5 | 13 | --- | 138 | --- | 89 | --- | 2.6 | .41 | --- |
| TOTAL | 54.17 | 182.7 | 245.9 | 278.5 | 804.0 | 10094 | 9963 | 5606 | 9364 | 224.3 | 48.16 | 12.72 |
| MEAN | 1.75 | 6.09 | 7.93 | 8.98 | 27.7 | 326 | 332 | 181 | 312 | 7.24 | 1.55 | .42 |
| MAX | 11 | 32 | 28 | 14 | 218 | 1840 | 1930 | 1620 | 4190 | 18 | 3.0 | .78 |
| MIN | .70 | 2.8 | 5.0 | 5.5 | 8.5 | 46 | 79 | 49 | 20 | 2.6 | .41 | .12 |
| AC-FT | 107 | 362 | 488 | 552 | 1590 | 20020 | 19760 | 11120 | 18570 | 445 | 96 | 25 |

CAL YR 1983 TOTAL 32007.38 MEAN 87.7 MAX 4650 MIN .56 AC-FT 63490
WTR YR 1984 TOTAL 36877.45 MEAN 101 MAX 4190 MIN .12 AC-FT 73150

## 07168000 FALL RIVER LAKE NEAR FALL RIVER, KS

**LOCATION.**--Lat 37 deg 38 min 48 sec, long 96 deg 04 min 39 sec, in NW1/4 NE1/4 sec.3, T.28 S., R.12 E., Greenwood County, Hydrologic Unit 11070102, on right bank at dam on Fall River, 4.0 mi northwest of town of Fall River, and at mile 54.2.

**DRAINAGE AREA.**--585 sq mi.

**PERIOD OF RECORD.**--April 1949 to current year (monthly records only prior to October 1957). Prior to October 1971 published as "Fall River Reservoir."

**GAGE.**--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

**REMARKS.**--Reservoir is formed by earthfill dam. Spillway is a concrete, gravity, ogee-weir type. Regulated storage began Apr. 20, 1949. Conservation pool stage, elevation, 948.5 ft was first reached June 5, 1949. Elevation of top of dam, 996.5 ft; maximum design pool, 990.0 ft; flood-control pool level, 987.5 ft, capacity, 259,000 acre-ft; and conservation pool level, 948.5 ft, capacity, 23,940 acre-ft, of which 17,000 acre-ft is for pollution abatement. Reservoir was designed for flood control and conservation. Figures given herein represent total contents.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum elevation, 987.18 ft July 13, 1951, contents, 260,200 acre-ft; minimum, 933.08 ft Feb. 3, 1955, contents, 3,110 acre-ft.

**EXTREMES FOR CURRENT YEAR.**--Maximum elevation, 962.80 ft June 10, 11, contents, 75,670 acre-ft; minimum, 947.11 ft Oct. 14, 15, contents, 18,800 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made by Corps of Engineers, revised in 1977)

| | | | |
|---|---|---|---|
| 945 | 14,620 | 960 | 62,380 |
| 950 | 25,660 | 965 | 86,980 |
| 955 | 41,640 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 947.31 | 947.57 | 948.43 | 948.58 | 949.05 | 948.62 | 953.67 | 949.38 | 950.80 | 948.88 | 948.49 | 947.90 |
| 2 | 947.27 | 947.60 | 948.50 | 948.56 | 948.93 | 948.67 | 952.76 | 949.45 | 950.29 | 948.92 | 948.45 | 947.88 |
| 3 | 947.27 | 947.60 | 948.66 | 948.56 | 948.84 | 948.75 | 952.44 | 951.57 | 949.74 | 948.91 | 948.43 | 947.85 |
| 4 | 947.24 | 947.58 | 948.86 | 948.55 | 948.72 | 949.85 | 951.48 | 951.64 | 949.21 | 948.91 | 948.43 | 947.79 |
| 5 | 947.22 | 947.57 | 948.79 | 948.70 | 948.60 | 949.90 | 950.30 | 951.00 | 948.84 | 948.92 | 948.39 | 947.75 |
| 6 | 947.21 | 947.57 | 948.70 | 948.85 | 948.56 | 949.38 | 949.62 | 950.38 | 948.85 | 948.96 | 948.36 | 947.71 |
| 7 | 947.21 | 947.57 | 948.57 | 948.94 | 948.59 | 948.93 | 949.76 | 949.63 | 948.83 | 948.97 | 948.35 | 947.65 |
| 8 | 947.20 | 947.56 | 948.51 | 949.02 | 948.60 | 948.61 | 955.10 | 948.93 | 952.05 | 948.97 | 948.35 | 947.64 |
| 9 | 947.19 | 947.60 | 948.52 | 949.11 | 948.71 | 948.60 | 956.52 | 948.73 | 961.05 | 948.89 | 948.34 | 947.63 |
| 10 | 947.18 | 947.59 | 948.55 | 949.20 | 948.83 | 948.65 | 957.55 | 948.73 | 962.80 | 948.92 | 948.34 | 947.61 |
| 11 | 947.18 | 947.55 | 948.54 | 949.20 | 948.90 | 948.70 | 958.04 | 948.77 | 962.46 | 948.95 | 948.30 | 947.59 |
| 12 | 947.15 | 947.57 | 948.56 | 949.20 | 948.97 | 948.90 | 960.15 | 948.83 | 961.60 | 948.95 | 948.29 | 947.56 |
| 13 | 947.14 | 947.57 | 948.55 | 949.21 | 949.03 | 948.99 | 959.79 | 948.85 | 960.68 | 948.95 | 948.26 | 947.55 |
| 14 | 947.12 | 947.62 | 948.52 | 949.22 | 948.96 | 948.87 | 958.90 | 948.85 | 959.75 | 948.94 | 948.25 | 947.53 |
| 15 | 947.13 | 947.59 | 948.58 | 949.23 | 948.85 | 948.75 | 957.86 | 948.85 | 958.65 | 948.92 | 948.23 | 947.51 |
| 16 | 947.16 | 947.60 | 948.57 | 949.23 | 948.65 | 948.76 | 956.72 | 948.94 | 957.46 | 948.90 | 948.20 | 947.48 |
| 17 | 947.13 | 947.61 | 948.59 | 949.23 | 948.62 | 950.52 | 955.48 | 948.94 | 956.27 | 948.89 | 948.17 | 947.48 |
| 18 | 947.18 | 947.61 | 948.58 | 949.24 | 948.60 | 952.00 | 954.17 | 948.91 | 955.49 | 948.87 | 948.15 | 947.42 |
| 19 | 947.28 | 947.70 | 948.59 | 949.28 | 948.65 | 956.50 | 952.75 | 949.13 | 954.19 | 948.85 | 948.10 | 947.40 |
| 20 | 947.46 | 947.71 | 948.62 | 949.26 | 948.65 | 959.90 | 952.64 | 950.14 | 952.89 | 948.83 | 948.09 | 947.40 |
| 21 | 947.55 | 947.71 | 948.63 | 949.30 | 948.65 | 959.65 | 954.60 | 950.04 | 951.76 | 948.80 | 948.14 | 947.36 |
| 22 | 947.55 | 947.67 | 948.64 | 949.32 | 948.65 | 958.98 | 954.42 | 949.58 | 950.76 | 948.78 | 948.15 | 947.35 |
| 23 | 947.56 | 947.74 | 948.65 | 949.35 | 948.74 | 958.78 | 953.95 | 949.09 | 950.49 | 948.75 | 948.14 | 947.37 |
| 24 | 947.57 | 947.77 | 948.66 | 949.37 | 948.74 | 959.10 | 953.35 | 948.71 | 950.26 | 948.73 | 948.13 | 947.38 |
| 25 | 947.56 | 947.78 | 948.68 | 949.39 | 948.72 | 958.50 | 952.63 | 948.73 | 949.85 | 948.70 | 948.10 | 947.40 |
| 26 | 947.57 | 947.85 | 948.66 | 949.44 | 948.80 | 958.15 | 951.90 | 948.70 | 949.35 | 948.67 | 948.09 | 947.37 |
| 27 | 947.57 | 948.08 | 948.66 | 949.41 | 949.47 | 958.04 | 951.19 | 951.03 | 948.92 | 948.64 | 948.01 | 947.39 |
| 28 | 947.57 | 948.25 | 948.66 | 949.36 | 949.44 | 957.45 | 950.50 | 951.67 | 948.74 | 948.60 | 947.99 | 947.32 |
| 29 | 947.56 | 948.32 | 948.65 | 949.30 | 948.84 | 956.62 | 950.10 | 951.94 | 948.79 | 948.57 | 947.98 | 947.31 |
| 30 | 947.56 | 948.38 | 948.63 | 949.20 | --- | 955.65 | 954.90 | 951.78 | 948.81 | 948.55 | 947.96 | 947.30 |
| 31 | 947.56 | --- | 948.60 | 949.12 | --- | 954.65 | --- | 951.34 | --- | 948.52 | 947.94 | --- |
| MEAN | 947.34 | 947.72 | 948.61 | 949.13 | 948.81 | 952.82 | 954.11 | 949.75 | 953.32 | 948.83 | 948.21 | 947.53 |
| MAX | 947.57 | 948.38 | 948.86 | 949.44 | 949.47 | 959.90 | 960.15 | 951.94 | 962.80 | 948.97 | 948.49 | 947.90 |
| MIN | 947.12 | 947.55 | 948.43 | 948.55 | 948.56 | 948.60 | 949.62 | 948.70 | 948.74 | 948.52 | 947.94 | 947.30 |
| (+) | 19,770 | 21,620 | 22,130 | 23,400 | 22,710 | 40,350 | 25,390 | 29,390 | 22,640 | 21,940 | 20,610 | 19,210 |
| (#) | +520 | +1,850 | +510 | +1,270 | -690 | +17,640 | -14,960 | +4,000 | -6,750 | -700 | -1,330 | -1,400 |

CAL YR 1983 ........................ (#) -3,980
WTR YR 1984 ........................ (#) -40

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 07168500 FALL RIVER NEAR FALL RIVER, KS

LOCATION.--Lat 37 deg 38 min 34 sec, long 96 deg 03 min 33 sec, in SW1/4 NE1/4 sec.2, T.28 S., R.12 E., Greenwood County, Hydrologic Unit 11070102, near left bank on downstream side of highway bridge, 0.3 mi downstream from Fall River Dam, 2.5 mi upstream from Salt Creek, 3.0 mi northwest of town of Fall River, and at mile 53.9.

DRAINAGE AREA.--585 sq mi.

PERIOD OF RECORD.--April 1904 to September 1905 (gage heights only) published as "at Fall River," May 1939 to current year. Monthly discharge only for May 1939, published in WSP 1311.

REVISED RECORDS.--WSP 1147: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 898.44 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Sept. 30, 1905, nonrecording gage at site 4.7 mi downstream at datum 21.6 ft lower. May 5, 1939, to June 12, 1946, nonrecording gage at present site and datum. June 13 to Aug. 26, 1946, nonrecording gage and Aug. 27, 1946, to Sept. 30, 1957, water-stage recorder, at site 3.1 mi downstream at datum 12.79 ft lower.

REMARKS.--Records good. Flow regulated since 1949 by Fall River Lake, 0.3 mi above station (see sta 07168000). Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--45 years, 334 cu ft per sec, 242,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,600 cu ft per sec Apr. 16, 1945, gage height, 31.15 ft, present site and datum; no flow at times in 1939-40, 1946, 1955, 1967, 1976, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,010 cu ft per sec Apr. 13, gage height, 9.55 ft; minimum discharge, 2.2 cu ft per sec Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.9 | 3.9 | 2.6 | 22 | 198 | 528 | 2470 | 1320 | 935 | 16 | 16 | 5.9 |
| 2 | 6.0 | 3.9 | 2.6 | 22 | 198 | 173 | 2430 | 1120 | 854 | 16 | 16 | 5.9 |
| 3 | 6.3 | 4.1 | 2.7 | 21 | 198 | 172 | 2420 | 1020 | 846 | 16 | 12 | 5.9 |
| 4 | 5.9 | 4.2 | 2.5 | 21 | 198 | 173 | 2390 | 1290 | 835 | 16 | 5.8 | 5.9 |
| 5 | 3.3 | 4.2 | 216 | 20 | 198 | 788 | 2350 | 1690 | 586 | 16 | 5.8 | 5.9 |
| 6 | 2.4 | 4.2 | 340 | 20 | 98 | 1280 | 1530 | 1670 | 88 | 16 | 6.0 | 5.9 |
| 7 | 2.8 | 4.2 | 243 | 20 | 24 | 1030 | 706 | 1660 | 88 | 16 | 6.0 | 5.3 |
| 8 | 2.7 | 3.6 | 176 | 20 | 25 | 653 | 737 | 1390 | 420 | 16 | 6.2 | 5.1 |
| 9 | 2.6 | 3.6 | 107 | 20 | 25 | 293 | 768 | 685 | 276 | 16 | 6.4 | 5.6 |
| 10 | 2.7 | 3.6 | 68 | 20 | 54 | 170 | 779 | 398 | 4.2 | 16 | 6.2 | 5.9 |
| 11 | 3.0 | 3.9 | 67 | 20 | 69 | 171 | 1690 | 278 | 1280 | 16 | 5.9 | 6.0 |
| 12 | 2.5 | 3.6 | 67 | 21 | 69 | 282 | 937 | 242 | 2720 | 16 | 5.9 | 6.2 |
| 13 | 2.3 | 3.6 | 67 | 21 | 71 | 462 | 2600 | 243 | 2680 | 16 | 5.9 | 6.2 |
| 14 | 2.5 | 3.4 | 66 | 21 | 184 | 530 | 2970 | 242 | 2550 | 16 | 6.2 | 6.4 |
| 15 | 2.4 | 3.1 | 67 | 21 | 245 | 529 | 2920 | 243 | 2620 | 16 | 6.4 | 6.4 |
| 16 | 2.6 | 2.8 | 39 | 21 | 245 | 349 | 2880 | 245 | 2600 | 16 | 6.4 | 6.4 |
| 17 | 3.1 | 2.8 | 22 | 21 | 138 | 253 | 2830 | 245 | 2560 | 16 | 6.3 | 6.3 |
| 18 | 3.7 | 3.1 | 22 | 21 | 67 | 165 | 2790 | 221 | 2530 | 16 | 5.9 | 5.4 |
| 19 | 4.1 | 3.1 | 22 | 21 | 65 | 20 | 2730 | 173 | 2500 | 16 | 5.9 | 5.2 |
| 20 | 4.6 | 3.4 | 22 | 21 | 67 | 750 | 2080 | 175 | 2450 | 16 | 5.9 | 5.1 |
| 21 | 4.2 | 3.4 | 22 | 21 | 67 | 2150 | 1730 | 570 | 2410 | 16 | 6.1 | 4.9 |
| 22 | 3.9 | 3.4 | 22 | 22 | 67 | 2700 | 1740 | 898 | 1670 | 16 | 6.8 | 4.9 |
| 23 | 3.4 | 3.4 | 22 | 22 | 67 | 2670 | 1730 | 891 | 883 | 16 | 6.4 | 4.8 |
| 24 | 3.4 | 2.6 | 22 | 22 | 66 | 2680 | 1720 | 652 | 881 | 16 | 6.4 | 4.5 |
| 25 | 3.1 | 2.6 | 22 | 23 | 67 | 2670 | 1700 | 298 | 877 | 16 | 6.4 | 3.7 |
| 26 | 3.4 | 2.6 | 22 | 23 | 67 | 2640 | 1690 | 171 | 772 | 16 | 6.4 | 4.5 |
| 27 | 3.6 | 2.6 | 22 | 136 | 67 | 2620 | 1470 | 109 | 686 | 16 | 6.4 | 5.0 |
| 28 | 3.6 | 2.6 | 21 | 198 | 568 | 2610 | 1330 | 3.4 | 280 | 16 | 6.4 | 4.9 |
| 29 | 3.9 | 2.7 | 21 | 198 | 1110 | 2580 | 1320 | 3.2 | 16 | 16 | 6.0 | 4.9 |
| 30 | 3.9 | 2.6 | 21 | 198 | --- | 2540 | 1330 | 564 | 16 | 16 | 5.9 | 4.9 |
| 31 | 3.9 | --- | 22 | 198 | --- | 2510 | --- | 870 | --- | 16 | 5.9 | --- |
| TOTAL | 111.7 | 100.8 | 1860.4 | 1476 | 4552 | 37141 | 56767 | 19579.6 | 37913.2 | 496 | 216.2 | 163.9 |
| MEAN | 3.60 | 3.36 | 60.0 | 47.6 | 158 | 1198 | 1892 | 632 | 1264 | 16.0 | 6.97 | 5.46 |
| MAX | 6.3 | 4.2 | 340 | 198 | 1110 | 2700 | 2970 | 1690 | 2720 | 16 | 16 | 6.4 |
| MIN | 2.3 | 2.6 | 2.5 | 20 | 24 | 20 | 706 | 3.2 | 4.2 | 16 | 5.8 | 3.7 |
| AC-FT | 222 | 200 | 3690 | 2930 | 9090 | 73670 | 112600 | 38840 | 75200 | 984 | 429 | 325 |

CAL YR 1983 TOTAL 130494.5 MEAN 358 MAX 5060 MIN 2.3 AC-FT 258800
WTR YR 1984 TOTAL 160407.8 MEAN 438 MAX 2970 MIN 2.3 AC-FT 318200

## 07169500 FALL RIVER AT FREDONIA, KS

LOCATION.--Lat 37 deg 30 min 30 sec, long 95 deg 50 min 00 sec, in SW1/4 NW1/4 sec.24, T.29 S., R.14 E., Wilson County, Hydrologic Unit 11070102, on right bank at downstream side of bridge on State Highway 96, 0.8 mi upstream from Clear Creek, 1.0 mi downstream from Salt Creek, 1.0 mi south of Fredonia, and at mile 25.3.

DRAINAGE AREA.--827 sq mi.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for October and November 1938, published in WSP 1311. Published as "near Fredonia" 1952-57.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1341: 1939-40.

GAGE.--Water-stage recorder. Datum of gage is 819.09 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Dec. 21, 1949, nonrecording gage at same site and datum.

REMARKS.--Records good. Considerable regulation since 1949 by Fall River Lake 28.9 mi above (see sta 07168000) and during low flow by Fredonia City Water Reservoir 1.0 mi upstream. Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--46 years, 469 cu ft per sec, 339,800 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,000 cu ft per sec Apr. 16, 1945, gage height, 36.17 ft; no flow at times in 1939-40, 1980-81.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1904, that of Apr. 16, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,500 cu ft per sec June 9, gage height, 26.54 ft; minimum, 3.2 cu ft per sec Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.0 | 6.1 | 13 | 28 | 226 | 1070 | 2690 | 1440 | 983 | 47 | 23 | 6.9 |
| 2 | 5.9 | 6.4 | 9.9 | 28 | 222 | 323 | 2730 | 1360 | 986 | 43 | 23 | 6.4 |
| 3 | 5.9 | 6.3 | 18 | 28 | 219 | 249 | 3270 | 1100 | 900 | 40 | 21 | 7.4 |
| 4 | 5.9 | 12 | 72 | 29 | 216 | 1190 | 2760 | 1140 | 889 | 39 | 18 | 7.9 |
| 5 | 6.8 | 17 | 52 | 30 | 215 | 568 | 2510 | 1700 | 889 | 37 | 15 | 7.8 |
| 6 | 6.7 | 16 | 278 | 32 | 212 | 1280 | 2300 | 1830 | 388 | 45 | 9.6 | 6.2 |
| 7 | 7.0 | 16 | 362 | 33 | 107 | 1270 | 1010 | 1850 | 169 | 40 | 9.4 | 4.4 |
| 8 | 6.7 | 17 | 243 | 33 | 29 | 889 | 4190 | 1730 | 518 | 36 | 13 | 4.0 |
| 9 | 5.8 | 20 | 200 | 34 | 28 | 539 | 2870 | 1080 | 10900 | 34 | 13 | 5.2 |
| 10 | 4.9 | 19 | 124 | 33 | 32 | 270 | 1610 | 568 | 9340 | 33 | 14 | 5.4 |
| 11 | 5.5 | 15 | 82 | 30 | 70 | 241 | 1960 | 419 | 796 | 30 | 13 | 6.3 |
| 12 | 5.1 | 17 | 78 | 30 | 111 | 361 | 3580 | 329 | 2770 | 29 | 10 | 6.8 |
| 13 | 5.0 | 16 | 78 | 27 | 96 | 654 | 2410 | 311 | 2960 | 32 | 8.5 | 6.8 |
| 14 | 5.9 | 14 | 75 | 25 | 87 | 645 | 3150 | 301 | 2870 | 31 | 7.5 | 6.7 |
| 15 | 5.2 | 15 | 74 | 28 | 221 | 611 | 3080 | 376 | 2700 | 28 | 9.2 | 6.3 |
| 16 | 5.8 | 14 | 69 | 27 | 272 | 574 | 3020 | 355 | 2740 | 31 | 8.7 | 6.5 |
| 17 | 8.9 | 15 | 52 | 29 | 269 | 1490 | 2960 | 326 | 2690 | 31 | 5.7 | 6.9 |
| 18 | 8.8 | 15 | 23 | 30 | 148 | 2710 | 2890 | 307 | 2650 | 28 | 5.9 | 7.9 |
| 19 | 8.7 | 19 | 18 | 28 | 78 | 5600 | 2840 | 266 | 2610 | 26 | 9.4 | 8.8 |
| 20 | 40 | 20 | 19 | 30 | 74 | 1390 | 2830 | 312 | 2630 | 26 | 14 | 8.9 |
| 21 | 239 | 21 | 21 | 30 | 74 | 1780 | 4920 | 343 | 2630 | 24 | 16 | 7.9 |
| 22 | 58 | 21 | 21 | 33 | 76 | 2780 | 2450 | 865 | 2410 | 25 | 68 | 6.5 |
| 23 | 18 | 37 | 20 | 34 | 76 | 2920 | 1990 | 891 | 1100 | 25 | 38 | 5.5 |
| 24 | 10 | 24 | 20 | 34 | 73 | 5320 | 1890 | 838 | 935 | 25 | 18 | 6.7 |
| 25 | 6.9 | 18 | 19 | 35 | 73 | 3460 | 1840 | 520 | 927 | 24 | 12 | 6.7 |
| 26 | 5.3 | 14 | 20 | 37 | 251 | 3030 | 1800 | 256 | 925 | 23 | 11 | 6.7 |
| 27 | 4.6 | 30 | 25 | 42 | 533 | 3030 | 1730 | 7340 | 727 | 22 | 9.8 | 7.2 |
| 28 | 4.2 | 60 | 29 | 133 | 485 | 2810 | 1450 | 6180 | 667 | 20 | 9.3 | 6.9 |
| 29 | 3.9 | 37 | 28 | 238 | 1080 | 2860 | 1480 | 473 | 190 | 22 | 9.0 | 6.1 |
| 30 | 4.6 | 20 | 26 | 234 | --- | 2690 | 1670 | 287 | 61 | 22 | 9.1 | 5.9 |
| 31 | 6.1 | --- | 25 | 229 | --- | 2640 | --- | 958 | --- | 23 | 8.0 | --- |
| TOTAL | 521.1 | 577.8 | 2193.9 | 1671 | 5653 | 55244 | 75880 | 36051 | 61950 | 941 | 459.1 | 199.6 |
| MEAN | 16.8 | 19.3 | 70.8 | 53.9 | 195 | 1782 | 2529 | 1163 | 2065 | 30.4 | 14.8 | 6.65 |
| MAX | 239 | 60 | 362 | 238 | 1080 | 5600 | 4920 | 7340 | 10900 | 47 | 68 | 8.9 |
| MIN | 3.9 | 6.1 | 9.9 | 25 | 28 | 241 | 1010 | 256 | 61 | 20 | 5.7 | 4.0 |
| AC-FT | 1030 | 1150 | 4350 | 3310 | 11210 | 109600 | 150500 | 71510 | 122900 | 1870 | 911 | 396 |

CAL YR 1983 TOTAL 203139.3 MEAN 557 MAX 7440 MIN 2.1 AC-FT 402900
WTR YR 1984 TOTAL 241341.5 MEAN 659 MAX 10900 MIN 3.9 AC-FT 478700

## *07169800 ELK RIVER AT ELK FALLS, KS*

LOCATION.--Lat 37 deg 22 min 32 sec, long 96 deg 11 min 07 sec, in SW1/4 SE1/4 SE1/4 sec.3, T.31 S., R.11 E., Elk County, Hydrologic Unit 11070104, at downstream side of bridge on U.S. Highway 160 in Elk Falls, 2.0 mi upstream from Wild Cat Creek, and at mile 57.5.

DRAINAGE AREA.--220 sq mi.

PERIOD OF RECORD.--January 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 897.300 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for October and November, which are poor.

AVERAGE DISCHARGE.--17 years, 151 cu ft per sec, 109,400 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 200,000 cu ft per sec July 3, 1976, gage height, 34.85 ft; no flow at times in 1967, 1970-72, 1980-83.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| May 27 | 1900 | 6,760 | 14.57 | June 10 | 0100 | 6,000 | 13.47 |
| June 9 | 0900 | *9,370 | 17.11 | | | | |

Minimum discharge, 0.03 cu ft per sec Oct. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .05 | .50 | .59 | .52 | 2.6 | 37 | 334 | 303 | 208 | 28 | 1.3 | .54 |
| 2 | .04 | .55 | .61 | .68 | 2.3 | 30 | 348 | 196 | 155 | 24 | 1.2 | .46 |
| 3 | .03 | .60 | 1.3 | 1.2 | 2.3 | 32 | 896 | 317 | 133 | 22 | 1.2 | .39 |
| 4 | .04 | .69 | 2.1 | 1.5 | 2.0 | 577 | 559 | 313 | 121 | 20 | 1.2 | .37 |
| 5 | .04 | .72 | 1.8 | 1.6 | 1.8 | 328 | 313 | 210 | 111 | 17 | 1.2 | .33 |
| 6 | .04 | .71 | 1.7 | 1.7 | 1.6 | 159 | 230 | 261 | 94 | 15 | 1.1 | .29 |
| 7 | .04 | .73 | 1.8 | 2.0 | 1.5 | 115 | 205 | 308 | 76 | 13 | .93 | .28 |
| 8 | .05 | .77 | 1.7 | 2.4 | 1.5 | 86 | 2110 | 202 | 70 | 12 | .77 | .27 |
| 9 | .06 | .85 | 1.5 | 2.4 | 1.8 | 66 | 1490 | 148 | 5440 | 10 | .77 | .41 |
| 10 | .05 | 1.0 | 1.3 | 2.3 | 2.4 | 54 | 838 | 125 | 3370 | 8.3 | .77 | .44 |
| 11 | .07 | 1.1 | 1.2 | 2.1 | 2.9 | 47 | 789 | 109 | 1790 | 7.9 | .77 | .47 |
| 12 | .09 | 1.1 | 1.1 | 2.0 | 3.0 | 82 | 1360 | 91 | 1240 | 6.5 | .71 | .47 |
| 13 | .09 | 1.1 | .94 | 1.5 | 2.9 | 152 | 742 | 80 | 793 | 5.7 | .64 | .47 |
| 14 | .09 | 1.3 | .84 | 1.4 | 3.0 | 127 | 394 | 192 | 509 | 5.1 | .58 | .42 |
| 15 | .09 | 1.3 | .77 | 1.3 | 3.1 | 103 | 288 | 1210 | 262 | 4.4 | .52 | .33 |
| 16 | .10 | 1.3 | .72 | 1.1 | 2.8 | 98 | 243 | 1090 | 177 | 3.9 | .47 | .23 |
| 17 | .12 | 1.3 | .71 | 1.0 | 2.7 | 698 | 204 | 437 | 135 | 3.8 | .47 | .23 |
| 18 | .13 | 1.4 | .64 | .90 | 2.8 | 956 | 173 | 255 | 113 | 3.9 | .42 | .25 |
| 19 | .27 | 1.6 | .58 | .90 | 2.9 | 2280 | 151 | 192 | 254 | 3.4 | .42 | .25 |
| 20 | .73 | 1.6 | .55 | .90 | 3.5 | 1330 | 165 | 344 | 278 | 2.9 | .37 | .25 |
| 21 | 1.2 | 1.6 | .58 | .90 | 3.0 | 730 | 1560 | 275 | 164 | 2.6 | .37 | .25 |
| 22 | .80 | 2.0 | .56 | 1.0 | 3.1 | 404 | 778 | 184 | 115 | 2.3 | .94 | .25 |
| 23 | .45 | 1.8 | .44 | 1.2 | 3.2 | 486 | 391 | 142 | 90 | 2.1 | 1.3 | .25 |
| 24 | .37 | .62 | .47 | 1.5 | 3.1 | 1930 | 265 | 118 | 75 | 1.9 | 1.3 | .25 |
| 25 | .35 | .53 | .43 | 2.0 | 2.9 | 1050 | 209 | 98 | 59 | 1.6 | 1.3 | .20 |
| 26 | .35 | .48 | .39 | 2.5 | 28 | 615 | 174 | 82 | 47 | 1.5 | 1.2 | .14 |
| 27 | .35 | .93 | .42 | 2.8 | 106 | 457 | 191 | 3070 | 39 | 1.4 | 1.0 | .13 |
| 28 | .40 | 1.0 | .53 | 2.9 | 99 | 381 | 173 | 2550 | 34 | 1.3 | .99 | .13 |
| 29 | .45 | .80 | .58 | 2.9 | 58 | 510 | 232 | 1160 | 31 | 1.6 | 1.0 | .13 |
| 30 | .50 | .70 | .52 | 2.9 | --- | 332 | 797 | 528 | 32 | 1.4 | .83 | .13 |
| 31 | .50 | --- | .52 | 2.8 | --- | 278 | --- | 297 | --- | 1.3 | .67 | --- |
| TOTAL | 7.94 | 30.68 | 27.89 | 52.80 | 355.7 | 14528 | 16602 | 14885 | 16015 | 235.6 | 26.71 | 9.01 |
| MEAN | .26 | 1.02 | .90 | 1.70 | 12.3 | 469 | 553 | 480 | 534 | 7.60 | .86 | .30 |
| MAX | 1.2 | 2.0 | 2.1 | 2.9 | 106 | 2280 | 2110 | 3070 | 5440 | 28 | 1.3 | .54 |
| MIN | .03 | .48 | .39 | .52 | 1.5 | 30 | 151 | 80 | 31 | 1.3 | .37 | .13 |
| AC-FT | 16 | 61 | 55 | 105 | 706 | 28820 | 32930 | 29520 | 31770 | 467 | 53 | 18 |

CAL YR 1983 TOTAL 43813.92 MEAN 120 MAX 4730 MIN .01 AC-FT 86900
WTR YR 1984 TOTAL 62776.33 MEAN 172 MAX 5440 MIN .03 AC-FT 124500

## 07170050 ELK CITY LAKE NEAR INDEPENDENCE, KS

LOCATION.--Lat 37 deg 16 min 39 sec, long 95 deg 46 min 37 sec, in SW1/4 SW1/4 NW1/4 sec.9, T.32 S., R.15 E., Montgomery County, Hydrologic Unit 11070104, in gate tower of Elk City Dam, on Elk River, 5.0 mi northwest of Independence, and at mile 8.7.

DRAINAGE AREA.--634 sq mi.

PERIOD OF RECORD.--March 1966 to current year. Prior to October 1971 published as "Elk City Reservoir."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Mar. 17, 1966. Total capacity, 514,300 acre-ft, consisting of the following: Sedimentation, 345 acre-ft below elevation 764.0 ft; conservation, 28,660 acre-ft between elevations 764.0 ft and 792.0 ft; flood control, 255,300 acre-ft between elevations 792.0 ft and 825.0 ft; uncontrolled storage, 230,000 acre-ft between elevations 825.0 ft and 838.0 ft. Reservoir is designed for flood control, pollution control, conservation and recreation. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 826.32 ft July 6, 1976, contents, 302,300 acre-ft; minimum since conservation pool first filled, 781.25 ft Apr. 12, 1967, contents, 8,090 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 809.10 ft May 30, contents, 124,400 acre-ft; minimum, 791.13 ft Sept. 30, contents, 26,090 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made in 1977 by Corps of Engineers)

| | | | |
|---|---|---|---|
| 790 | 22,570 | 805 | 94,820 |
| 795 | 40,460 | 810 | 131,500 |
| 800 | 64,500 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 794.70 | 796.01 | 796.13 | 796.20 | 796.33 | 792.34 | 795.35 | 795.15 | 806.99 | 794.26 | 793.51 | 791.79 |
| 2 | 794.68 | 796.01 | 796.12 | 796.20 | 796.30 | 792.30 | 794.84 | 794.90 | 805.85 | 794.25 | 793.40 | 791.78 |
| 3 | 794.64 | 796.00 | 796.20 | 796.20 | 796.27 | 792.45 | 795.10 | 794.66 | 804.59 | 794.24 | 793.26 | 791.74 |
| 4 | 794.62 | 795.98 | 796.24 | 796.20 | 796.24 | 794.29 | 795.18 | 794.60 | 803.34 | 794.24 | 793.15 | 791.72 |
| 5 | 794.61 | 795.97 | 796.25 | 796.21 | 796.18 | 794.41 | 794.90 | 794.60 | 802.00 | 794.24 | 793.02 | 791.70 |
| 6 | 794.58 | 795.96 | 796.26 | 796.22 | 796.15 | 793.72 | 794.66 | 794.65 | 800.61 | 794.22 | 792.96 | 791.63 |
| 7 | 794.56 | 795.95 | 796.26 | 796.23 | 796.15 | 792.85 | 794.70 | 794.85 | 799.09 | 794.20 | 792.80 | 791.58 |
| 8 | 794.54 | 795.94 | 796.27 | 796.24 | 795.89 | 792.41 | 796.85 | 794.64 | 797.80 | 794.20 | 792.70 | 791.61 |
| 9 | 794.53 | 795.93 | 796.26 | 796.25 | 795.35 | 792.30 | 799.01 | 794.18 | 798.15 | 794.17 | 792.58 | 791.65 |
| 10 | 794.52 | 795.89 | 796.28 | 796.24 | 794.76 | 792.30 | 799.67 | 794.05 | 801.69 | 794.13 | 792.44 | 791.64 |
| 11 | 794.53 | 795.87 | 796.26 | 796.24 | 794.19 | 792.25 | 799.80 | 794.14 | 803.37 | 794.10 | 792.30 | 791.62 |
| 12 | 794.50 | 795.86 | 796.25 | 796.24 | 793.56 | 792.58 | 800.12 | 794.24 | 803.67 | 794.08 | 792.17 | 791.59 |
| 13 | 794.49 | 795.87 | 796.25 | 796.24 | 792.92 | 792.74 | 799.94 | 794.29 | 803.35 | 794.07 | 792.10 | 791.55 |
| 14 | 794.46 | 795.85 | 796.25 | 796.23 | 792.52 | 792.67 | 799.29 | 794.41 | 802.85 | 794.04 | 792.09 | 791.49 |
| 15 | 794.44 | 795.83 | 796.24 | 796.25 | 792.24 | 792.50 | 798.55 | 795.60 | 802.25 | 794.00 | 792.05 | 791.45 |
| 16 | 794.45 | 795.83 | 796.24 | 796.25 | 792.14 | 792.65 | 797.71 | 796.86 | 801.57 | 794.00 | 792.04 | 791.42 |
| 17 | 794.65 | 795.82 | 796.20 | 796.26 | 792.13 | 794.15 | 796.81 | 796.76 | 800.85 | 793.97 | 792.01 | 791.42 |
| 18 | 794.66 | 795.84 | 796.20 | 796.26 | 792.16 | 796.00 | 795.85 | 796.42 | 800.10 | 793.95 | 791.96 | 791.40 |
| 19 | 794.68 | 795.90 | 796.21 | 796.26 | 792.15 | 799.25 | 794.80 | 796.05 | 799.30 | 793.94 | 791.94 | 791.38 |
| 20 | 796.04 | 795.89 | 796.23 | 796.25 | 792.15 | 800.81 | 794.39 | 795.67 | 798.65 | 793.90 | 791.92 | 791.36 |
| 21 | 796.66 | 795.89 | 796.22 | 796.26 | 792.14 | 800.57 | 796.05 | 795.35 | 797.88 | 793.87 | 791.90 | 791.35 |
| 22 | 796.43 | 795.92 | 796.20 | 796.26 | 792.14 | 799.55 | 796.93 | 794.92 | 796.95 | 793.85 | 791.98 | 791.32 |
| 23 | 796.17 | 795.97 | 796.26 | 796.26 | 792.10 | 798.74 | 796.32 | 794.47 | 795.91 | 793.83 | 791.97 | 791.30 |
| 24 | 796.05 | 795.99 | 796.20 | 796.27 | 792.10 | 800.79 | 795.98 | 794.18 | 794.80 | 793.80 | 791.95 | 791.30 |
| 25 | 796.04 | 795.99 | 796.19 | 796.28 | 792.05 | 801.55 | 795.03 | 794.13 | 794.22 | 793.79 | 791.94 | 791.21 |
| 26 | 796.05 | 796.01 | 796.20 | 796.29 | 792.75 | 801.47 | 794.39 | 794.10 | 794.27 | 793.75 | 791.92 | 791.18 |
| 27 | 796.04 | 796.08 | 796.21 | 796.30 | 793.33 | 801.72 | 794.23 | 801.10 | 794.27 | 793.72 | 791.92 | 791.20 |
| 28 | 796.03 | 796.11 | 796.20 | 796.31 | 793.14 | 799.80 | 794.34 | 807.06 | 794.28 | 793.69 | 791.90 | 791.15 |
| 29 | 796.02 | 796.11 | 796.20 | 796.33 | 792.65 | 798.75 | 795.00 | 808.81 | 794.28 | 793.65 | 791.88 | 791.14 |
| 30 | 796.01 | 796.13 | 796.20 | 796.32 | --- | 797.60 | 795.26 | 808.84 | 794.27 | 793.65 | 791.85 | 791.13 |
| 31 | 796.01 | --- | 796.19 | 796.34 | --- | 796.46 | --- | 807.99 | --- | 793.61 | 791.83 | --- |
| MEAN | 795.17 | 795.95 | 796.22 | 796.25 | 793.73 | 795.87 | 796.39 | 796.83 | 799.57 | 793.98 | 792.30 | 791.46 |
| MAX | 796.66 | 796.13 | 796.28 | 796.34 | 796.33 | 801.72 | 800.12 | 808.84 | 806.99 | 794.26 | 793.51 | 791.79 |
| MIN | 794.44 | 795.82 | 796.12 | 796.20 | 792.05 | 792.25 | 794.23 | 794.05 | 794.22 | 793.61 | 791.83 | 791.13 |
| (+) | 44,800 | 45,340 | 45,610 | 46,280 | 31,320 | 46,830 | 41,550 | 115,970 | 37,480 | 34,880 | 28,420 | 26,090 |
| (#) | +5,540 | +540 | +270 | +670 | -14,960 | +15,510 | -5,280 | +74,420 | -78,490 | -2,600 | -6,460 | -2,330 |

CAL YR 1983 ........................ (#) +7,120
WTR YR 1984 ........................ (#) -13,170

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## 07170060 ELK RIVER BELOW ELK CITY LAKE, KS

LOCATION.--Lat 37 deg 16 min 46 sec, long 95 deg 46 min 53 sec, in NW1/4 SW1/4 NW1/4 sec.9, T.32 S., R.15 E., Montgomery County, Hydrologic Unit 11070104, near left bank, 600 ft below Elk City Dam, and at mile 8.7.

DRAINAGE AREA.--634 sq mi.

PERIOD OF RECORD.--October 1965 to current year. Prior to October 1971, published as "below Elk City Reservoir."

GAGE.--Water-stage recorder. Datum of gage is 740.00 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Aug. 17, 1978 to Apr. 3, 1979 at site 600 ft downstream at same datum.

REMARKS.--Records good. Flow completely regulated since 1966by Elk City Lake 600 ft upstream (see sta 07170050).

AVERAGE DISCHARGE.--19 years, 389 cu ft per sec, 281,100 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,700 cu ft per sec July 7, 1976, gage height, 29.73 ft; no flow at times in 1966-67, 1971, 1979-80, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,470 cu ft per sec May 31, gage height, 20.11 ft; minimum discharge, 4.6 cu ft per sec Nov. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15 | 12 | 9.8 | 9.9 | 49 | 781 | 3380 | 896 | 4470 | 22 | 119 | 15 |
| 2 | 15 | 13 | 10 | 10 | 65 | 221 | 2690 | 886 | 4400 | 22 | 180 | 15 |
| 3 | 15 | 13 | 11 | 10 | 65 | 69 | 1180 | 881 | 4350 | 22 | 180 | 14 |
| 4 | 15 | 12 | 11 | 10 | 65 | 69 | 1180 | 686 | 4290 | 22 | 180 | 14 |
| 5 | 14 | 10 | 11 | 10 | 66 | 924 | 1170 | 472 | 4230 | 22 | 180 | 14 |
| 6 | 13 | 10 | 11 | 11 | 65 | 1830 | 962 | 473 | 4170 | 22 | 180 | 14 |
| 7 | 13 | 10 | 11 | 11 | 30 | 1500 | 540 | 476 | 4100 | 22 | 177 | 15 |
| 8 | 13 | 10 | 11 | 11 | 586 | 1120 | 555 | 961 | 3270 | 22 | 177 | 15 |
| 9 | 13 | 10 | 11 | 11 | 1240 | 364 | 573 | 1210 | 2410 | 22 | 177 | 16 |
| 10 | 13 | 10 | 11 | 11 | 1230 | 171 | 588 | 571 | 1030 | 22 | 176 | 16 |
| 11 | 13 | 10 | 11 | 10 | 1220 | 171 | 1410 | 20 | 12 | 22 | 175 | 16 |
| 12 | 13 | 10 | 9.7 | 11 | 1210 | 174 | 2490 | 19 | 1280 | 17 | 175 | 16 |
| 13 | 13 | 10 | 9.3 | 11 | 1200 | 411 | 2440 | 19 | 2290 | 14 | 77 | 16 |
| 14 | 13 | 10 | 9.2 | 11 | 778 | 540 | 2410 | 18 | 2280 | 14 | 14 | 17 |
| 15 | 12 | 10 | 9.2 | 11 | 498 | 538 | 2390 | 18 | 2270 | 14 | 18 | 17 |
| 16 | 13 | 10 | 9.5 | 11 | 208 | 388 | 2370 | 554 | 2250 | 14 | 18 | 17 |
| 17 | 13 | 10 | 9.6 | 11 | 20 | 278 | 2340 | 1290 | 2230 | 14 | 17 | 17 |
| 18 | 13 | 10 | 10 | 11 | 19 | 278 | 2320 | 1240 | 2210 | 14 | 16 | 17 |
| 19 | 12 | 10 | 10 | 10 | 19 | 142 | 2290 | 1210 | 2200 | 14 | 16 | 17 |
| 20 | 15 | 10 | 9.8 | 10 | 19 | 380 | 1520 | 1200 | 2350 | 14 | 16 | 17 |
| 21 | 340 | 11 | 9.7 | 10 | 19 | 2150 | 270 | 1200 | 2440 | 14 | 16 | 17 |
| 22 | 642 | 10 | 9.5 | 10 | 19 | 3590 | 272 | 1170 | 2410 | 14 | 17 | 19 |
| 23 | 630 | 10 | 9.8 | 10 | 19 | 3520 | 1150 | 1150 | 2390 | 14 | 16 | 18 |
| 24 | 260 | 10 | 9.8 | 10 | 19 | 2330 | 2320 | 825 | 2360 | 14 | 15 | 18 |
| 25 | 12 | 10 | 9.7 | 11 | 19 | 1250 | 2290 | 208 | 1130 | 15 | 15 | 16 |
| 26 | 12 | 10 | 9.4 | 11 | 21 | 1790 | 1570 | 51 | 23 | 15 | 15 | 14 |
| 27 | 12 | 11 | 10 | 11 | 593 | 3110 | 495 | 51 | 23 | 15 | 15 | 14 |
| 28 | 12 | 9.9 | 10 | 10 | 1250 | 3570 | 75 | 51 | 22 | 15 | 15 | 14 |
| 29 | 12 | 9.9 | 10 | 11 | 1210 | 3510 | 76 | 25 | 22 | 15 | 15 | 14 |
| 30 | 12 | 10 | 10 | 11 | --- | 3450 | 565 | 1980 | 22 | 15 | 15 | 14 |
| 31 | 12 | --- | 10 | 11 | --- | 3430 | --- | 4460 | --- | 15 | 15 | --- |
| TOTAL | 2225 | 311.8 | 313.3 | 327.9 | 11818 | 42359 | 43881 | 24271 | 66934 | 532 | 2437 | 473 |
| MEAN | 71.8 | 10.4 | 10.1 | 10.6 | 408 | 1366 | 1463 | 783 | 2231 | 17.2 | 78.6 | 15.8 |
| MAX | 642 | 13 | 11 | 11 | 1250 | 3590 | 3380 | 4460 | 4470 | 22 | 180 | 19 |
| MIN | 12 | 9.9 | 9.2 | 9.9 | 19 | 69 | 75 | 18 | 12 | 14 | 14 | 14 |
| AC-FT | 4410 | 618 | 621 | 650 | 23440 | 84020 | 87040 | 48140 | 132800 | 1060 | 4830 | 938 |

CAL YR 1983 TOTAL 133612.0 MEAN 366 MAX 3610 MIN 2.5 AC-FT 265000
WTR YR 1984 TOTAL 195883.0 MEAN 535 MAX 4470 MIN 9.2 AC-FT 388500

## 07170500 VERDIGRIS RIVER AT INDEPENDENCE, KS

LOCATION.--Lat 37 deg 13 min 26 sec, long 95 deg 40 min 43 sec, in NW1/4 NE1/4 NE1/4 sec.32, T.32 S., R.16 E., Montgomery County, Hydrologic Unit 11070103, near right bank at downstream side of bridge on U.S. Highway 160, 1.0 mi east of Independence, 3.6 mi downstream from Elk River, and at mile 194.3.

DRAINAGE AREA.--2,892 sq mi.

PERIOD OF RECORD.--August 1895 to September 1904 (monthly figures only, published in WSP 1311), October 1921 to current year.

REVISED RECORDS.--WSP 977: 1922, 1927-29. WSP 1117: Drainage area. WSP 1341: 1923-25(M), 1939.

GAGE.--Water-stage recorder. Datum of gage is 716.63 ft National Geodetic Vertical Datum of 1929. Aug. 2, 1895, to Nov. 30, 1903, nonrecording gage at former mill dam 5.0 mi downstream and 2.5 mi northwest of Liberty, at datum about 4.00 ft lower. Apr. 20 to Sept. 25, 1904, nonrecording gage at Myrtle Street highway bridge 0.8 mi upstream at different datum. Nov. 14, 1921, to Sept. 30, 1929, nonrecording gage at Myrtle Street bridge at datum 0.57 ft higher than present datum. Oct. 1, 1929, to Dec. 25, 1933, nonrecording gage at present site and datum.

REMARKS.--Records good except those for period of no gage-height record, Dec. 18 to Jan. 24, which are poor. Flow regulated since 1949 by Fall River Lake (see sta 07168000) and since 1960 by Toronto Lake (see sta 07165900). Since 1966, some regulation by Elk City Lake (see sta 07170050).

AVERAGE DISCHARGE.--72 years, 1,674 cu ft per sec, 1,213,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117,000 cu ft per sec Apr. 17, 1945, gage height, 47.28 ft; maximum gage height, 47.60 ft May 19, 1943; no flow at times in 1932, 1934, 1936, 1939-40, 1953-55.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,700 cu ft per sec, May 27, gage height, 38.87 ft; minimum, 13.0 cu ft per sec Aug. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 44 | 43 | 635 | 100 | 576 | 3680 | 10100 | 5260 | 6500 | 568 | 52 | 30 |
| 2 | 40 | 43 | 689 | 105 | 607 | 2700 | 9840 | 4470 | 6540 | 321 | 181 | 36 |
| 3 | 32 | 38 | 769 | 110 | 587 | 1640 | 9260 | 4080 | 6310 | 293 | 183 | 35 |
| 4 | 26 | 37 | 1180 | 115 | 576 | 3570 | 8880 | 4600 | 6190 | 296 | 187 | 31 |
| 5 | 22 | 35 | 1080 | 120 | 550 | 3510 | 7840 | 4570 | 6100 | 283 | 187 | 34 |
| 6 | 21 | 33 | 854 | 125 | 533 | 3720 | 7290 | 5490 | 5920 | 277 | 198 | 31 |
| 7 | 20 | 33 | 1010 | 130 | 506 | 4860 | 5700 | 5850 | 5080 | 287 | 197 | 30 |
| 8 | 21 | 33 | 1010 | 150 | 655 | 4120 | 8150 | 5680 | 4360 | 253 | 190 | 37 |
| 9 | 21 | 35 | 863 | 160 | 1540 | 2610 | 13300 | 5170 | 9340 | 145 | 184 | 64 |
| 10 | 24 | 37 | 786 | 160 | 1490 | 1670 | 8520 | 2670 | 18100 | 101 | 178 | 48 |
| 11 | 28 | 44 | 414 | 170 | 1460 | 922 | 6720 | 1250 | 20700 | 90 | 178 | 36 |
| 12 | 26 | 45 | 256 | 290 | 1820 | 1180 | 9710 | 1010 | 11900 | 86 | 176 | 28 |
| 13 | 24 | 46 | 239 | 280 | 1710 | 2410 | 10300 | 637 | 8490 | 77 | 145 | 26 |
| 14 | 25 | 46 | 235 | 280 | 1340 | 2610 | 8470 | 961 | 8630 | 75 | 38 | 26 |
| 15 | 23 | 46 | 222 | 275 | 872 | 2280 | 9200 | 1540 | 8390 | 74 | 22 | 26 |
| 16 | 29 | 52 | 208 | 260 | 910 | 2060 | 9060 | 1370 | 8170 | 74 | 21 | 27 |
| 17 | 155 | 47 | 195 | 270 | 687 | 4840 | 8880 | 2140 | 8090 | 79 | 20 | 29 |
| 18 | 113 | 42 | 175 | 270 | 672 | 6340 | 8700 | 2060 | 7960 | 81 | 18 | 31 |
| 19 | 64 | 112 | 150 | 260 | 405 | 14700 | 8550 | 1910 | 7940 | 75 | 17 | 31 |
| 20 | 1530 | 89 | 130 | 270 | 263 | 15300 | 8050 | 1780 | 8060 | 71 | 16 | 32 |
| 21 | 8560 | 68 | 135 | 275 | 241 | 6910 | 12000 | 1880 | 8830 | 67 | 17 | 32 |
| 22 | 1900 | 64 | 150 | 275 | 237 | 8430 | 12400 | 1970 | 8060 | 63 | 69 | 39 |
| 23 | 1080 | 91 | 150 | 280 | 227 | 10200 | 8100 | 2670 | 6990 | 53 | 77 | 56 |
| 24 | 658 | 165 | 150 | 170 | 225 | 13800 | 8120 | 2460 | 4560 | 44 | 77 | 55 |
| 25 | 142 | 184 | 150 | 111 | 220 | 13900 | 7810 | 1530 | 3560 | 47 | 65 | 51 |
| 26 | 96 | 144 | 150 | 127 | 1530 | 10400 | 7160 | 833 | 1820 | 49 | 58 | 45 |
| 27 | 81 | 310 | 150 | 177 | 4200 | 10400 | 5920 | 16500 | 2420 | 44 | 51 | 53 |
| 28 | 71 | 697 | 120 | 207 | 4830 | 10900 | 4640 | 26800 | 3090 | 39 | 49 | 62 |
| 29 | 61 | 701 | 100 | 424 | 3280 | 10500 | 5610 | 14200 | 3040 | 34 | 41 | 53 |
| 30 | 52 | 341 | 100 | 624 | --- | 10000 | 6090 | 2740 | 1550 | 33 | 36 | 50 |
| 31 | 45 | --- | 100 | 576 | --- | 9920 | --- | 5840 | --- | 32 | 32 | --- |
| TOTAL | 15034 | 3701 | 12555 | 7146 | 32749 | 200082 | 256370 | 140086 | 216690 | 4111 | 2960 | 1164 |
| MEAN | 485 | 123 | 405 | 231 | 1129 | 6454 | 8546 | 4519 | 7223 | 133 | 95.5 | 38.8 |
| MAX | 8560 | 701 | 1180 | 624 | 4830 | 15300 | 13300 | 26800 | 20700 | 568 | 198 | 64 |
| MIN | 20 | 33 | 100 | 100 | 220 | 922 | 4640 | 637 | 1550 | 32 | 16 | 26 |
| AC-FT | 29820 | 7340 | 24900 | 14170 | 64960 | 396900 | 508500 | 277900 | 429800 | 8150 | 5870 | 2310 |

CAL YR 1983 TOTAL 760400.4 MEAN 2083 MAX 18700 MIN 7.3 AC-FT 1508000
WTR YR 1984 TOTAL 892648.0 MEAN 2439 MAX 26800 MIN 16 AC-FT 1771000

## 07170695 BIG HILL LAKE NEAR CHERRYVALE, KS

LOCATION.--Lat 37 deg 16 min 12 sec, long 95 deg 28 min 12 sec, in NW1/4 SE1/4 sec.7, T.32 S., R.18 E., Labette County, Hydrologic Unit 11070103, inside the north end of landing of overlook bridge at Big Hill Dam on Big Hill Creek, 4.5 mi east of Cherryvale, and at mile 33.3.

DRAINAGE AREA.--36.9 sq mi.

PERIOD OF RECORD.--April 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Mar. 30, 1981. Total capacity, 40,590 acre-ft, consisting of the following: Dead storage, 226 acre-ft below elevation 814.0 ft; conservation pool, 27,240 acre-ft between elevations 814.0 ft and 858.0 ft; flood control pool, 13,060 acre-ft between elevations 858.0 ft and 867.5 ft; and uncontrolled storage, 3,090 acre-ft between elevations 867.5 ft and 869.5 ft. Reservoir was designed for flood control, water quality control, recreation, fish and wildlife, and future water supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 860.72 ft May 27, 1984, contents, 31,000 acre-ft; minimum since conservation pool was first filled, 856.36 ft Oct. 15, 16, 1983, contents, 25,540 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 860.72 ft May 27, contents, 31,000 acre-ft; minimum, 856.36 ft Oct. 15, 16, contents, 25,540 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made by Corps of Engineers)

| | | | |
|---|---|---|---|
| 854 | 22,790 | 864 | 35,470 |
| 859 | 28,780 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 856.49 | 857.93 | 858.03 | 857.71 | 857.85 | 858.36 | 858.30 | 858.12 | 858.49 | 857.73 | 857.30 | 856.94 |
| 2 | 856.48 | 857.92 | 858.03 | 857.71 | 857.86 | 858.29 | 858.51 | 858.10 | 858.36 | 857.72 | 857.26 | 856.91 |
| 3 | 856.46 | 857.93 | 858.09 | 857.72 | 857.86 | 858.22 | 858.55 | 858.09 | 858.28 | 857.70 | 857.25 | 856.90 |
| 4 | 856.46 | 857.93 | 858.12 | 857.74 | 857.85 | 858.56 | 858.45 | 858.08 | 858.20 | 857.70 | 857.25 | 856.88 |
| 5 | 856.44 | 857.92 | 858.10 | 857.76 | 857.83 | 858.45 | 858.37 | 858.06 | 858.14 | 857.68 | 857.23 | 856.86 |
| 6 | 856.43 | 857.89 | 858.05 | 857.76 | 857.82 | 858.35 | 858.36 | 858.05 | 858.10 | 857.76 | 857.22 | 856.85 |
| 7 | 856.41 | 857.88 | 858.02 | 857.79 | 857.82 | 858.30 | 858.55 | 858.11 | 858.04 | 857.72 | 857.22 | 856.82 |
| 8 | 856.41 | 857.85 | 857.98 | 857.80 | 857.83 | 859.17 | 859.38 | 858.10 | 858.04 | 857.71 | 857.23 | 856.89 |
| 9 | 856.40 | 857.85 | 857.95 | 857.82 | 857.83 | 858.12 | 859.15 | 858.06 | 858.17 | 857.70 | 857.22 | 856.87 |
| 10 | 856.40 | 857.84 | 857.94 | 857.80 | 857.86 | 858.08 | 858.96 | 858.04 | 858.36 | 857.67 | 857.21 | 856.87 |
| 11 | 856.40 | 857.81 | 857.92 | 857.80 | 857.91 | 859.04 | 858.74 | 858.03 | 858.32 | 857.65 | 857.20 | 856.87 |
| 12 | 856.40 | 857.79 | 857.88 | 857.81 | 858.05 | 858.15 | 858.71 | 858.00 | 858.24 | 857.63 | 857.18 | 856.85 |
| 13 | 856.40 | 857.79 | 857.87 | 857.81 | 858.05 | 858.17 | 858.55 | 858.00 | 858.17 | 857.62 | 857.15 | 856.85 |
| 14 | 856.38 | 857.79 | 857.85 | 857.80 | 858.04 | 858.15 | 858.53 | 857.96 | 858.13 | 857.60 | 857.14 | 856.83 |
| 15 | 856.36 | 857.79 | 857.83 | 857.80 | 858.01 | 858.20 | 858.51 | 857.98 | 858.09 | 857.58 | 857.12 | 856.79 |
| 16 | 856.39 | 857.77 | 857.81 | 857.79 | 858.01 | 858.34 | 858.25 | 857.97 | 858.05 | 857.57 | 857.10 | 856.75 |
| 17 | 856.47 | 857.74 | 857.80 | 857.79 | 857.95 | 858.58 | 858.19 | 857.95 | 858.01 | 857.60 | 857.09 | 856.73 |
| 18 | 856.47 | 857.74 | 857.76 | 857.79 | 857.93 | 859.60 | 858.15 | 857.95 | 857.96 | 857.59 | 857.08 | 856.71 |
| 19 | 856.51 | 857.80 | 857.74 | 857.78 | 857.92 | 859.61 | 858.12 | 857.94 | 857.93 | 857.56 | 857.05 | 856.71 |
| 20 | 858.15 | 857.78 | 857.73 | 857.77 | 857.89 | 859.20 | 858.50 | 857.93 | 857.96 | 857.55 | 857.02 | 856.71 |
| 21 | 858.86 | 857.80 | 857.73 | 857.75 | 857.88 | 858.94 | 859.29 | 857.92 | 857.94 | 857.54 | 857.01 | 856.70 |
| 22 | 858.62 | 857.88 | 857.71 | 857.75 | 857.87 | 859.43 | 858.99 | 857.91 | 857.93 | 857.51 | 857.09 | 856.67 |
| 23 | 858.44 | 857.93 | 857.69 | 857.75 | 857.87 | 858.69 | 858.76 | 857.90 | 857.92 | 857.50 | 857.06 | 856.67 |
| 24 | 858.33 | 857.93 | 857.68 | 857.75 | 857.83 | 858.98 | 858.59 | 857.89 | 857.88 | 857.45 | 857.04 | 856.67 |
| 25 | 858.22 | 857.93 | 857.67 | 857.76 | 857.84 | 858.61 | 858.46 | 857.88 | 857.87 | 857.46 | 857.02 | 856.64 |
| 26 | 858.15 | 857.93 | 857.69 | 857.80 | 858.32 | 858.66 | 858.39 | 857.85 | 857.84 | 857.45 | 857.00 | 856.60 |
| 27 | 858.10 | 858.20 | 857.72 | 857.82 | 858.61 | 858.53 | 858.30 | 860.72 | 857.83 | 857.41 | 856.98 | 856.59 |
| 28 | 858.05 | 858.23 | 857.72 | 857.84 | 858.60 | 858.45 | 858.21 | 859.85 | 857.82 | 857.39 | 856.98 | 856.58 |
| 29 | 858.01 | 858.17 | 857.70 | 857.87 | 858.42 | 858.40 | 858.18 | 859.25 | 857.80 | 857.36 | 856.97 | 856.57 |
| 30 | 857.98 | 858.09 | 857.70 | 857.86 | --- | 858.36 | 858.15 | 858.89 | 857.78 | 857.34 | 856.97 | 856.56 |
| 31 | 857.95 | --- | 857.70 | 857.86 | --- | 858.30 | --- | 858.64 | --- | 857.33 | 856.95 | --- |
| MEAN | 857.13 | 857.89 | 857.85 | 857.79 | 857.98 | 858.81 | 858.52 | 858.23 | 858.05 | 857.57 | 857.12 | 856.75 |
| MAX | 858.86 | 858.23 | 858.12 | 857.87 | 858.61 | 859.60 | 859.38 | 860.72 | 858.49 | 857.76 | 857.30 | 856.94 |
| MIN | 856.36 | 857.74 | 857.67 | 857.71 | 857.82 | 858.04 | 858.12 | 857.85 | 857.78 | 857.33 | 856.95 | 856.56 |
| (+) | 27,470 | 27,640 | 27,160 | 27,360 | 28,050 | 27,910 | 27,720 | 28,330 | 27,260 | 26,710 | 26,250 | 25,780 |
| (#) | +1,750 | +170 | -480 | +200 | +690 | -140 | -190 | +610 | -1,070 | -550 | -460 | -470 |

CAL YR 1983 ........................ (#) +17,070
WTR YR 1984 ........................ (#) +60

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BEST COPY AVAILABLE

## 07170700 BIG HILL CREEK NEAR CHERRYVALE, KS

LOCATION.--Lat 37 deg 16 min 00 sec, long 95 deg 28 min 05 sec, in SE1/4 SE1/4 sec.7, T.32 S., R.18 E., Labette County, Hydrologic Unit 11070103, on right downstream abutment of bridge on county road, 4.3 mi east of Cherryvale, and at mile 32.5.

DRAINAGE AREA.--37 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 795.93 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to May 6, 1958, nonrecording gage at same site and datum.

REMARKS.--Records fair. Flow completely regulated by Big Hill Lake 1,200 ft upstream since Apr. 1, 1981 (see sta 07170695). Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--27 years, 24.1 cu ft per sec, 17,460 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 cu ft per sec July 3, 1976, gage height, 23.02 ft; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in 1951 reached a stage of 18.92 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 646 cu ft per sec May 27, gage height, 14.20 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | 12 | 32 | .00 | 7.8 | 80 | 65 | 32 | 104 | 2.7 | .00 | .00 |
| 2 | .00 | 11 | 29 | .00 | 7.3 | 63 | 76 | 29 | 73 | 1.5 | .00 | .00 |
| 3 | .00 | 9.4 | 33 | .00 | 6.8 | 54 | 111 | 27 | 54 | .28 | .00 | .00 |
| 4 | .00 | 12 | 44 | .17 | 6.1 | 121 | 96 | 25 | 40 | .00 | .00 | .00 |
| 5 | .00 | 10 | 44 | .96 | 4.7 | 111 | 75 | 24 | 30 | .00 | .00 | .00 |
| 6 | .00 | 8.5 | 36 | 1.9 | 4.2 | 83 | 60 | 25 | 24 | .28 | .00 | .00 |
| 7 | .00 | 7.3 | 28 | 2.7 | 3.6 | 63 | 66 | 29 | 20 | 4.1 | .00 | .00 |
| 8 | .00 | 6.0 | 23 | 3.6 | 5.7 | 49 | 252 | 29 | 18 | 4.9 | .00 | .00 |
| 9 | .00 | 6.3 | 19 | 5.2 | 8.2 | 38 | 304 | 25 | 23 | 3.5 | .00 | .00 |
| 10 | .00 | 6.3 | 17 | 6.0 | 9.6 | 31 | 219 | 21 | 66 | 2.1 | .00 | .00 |
| 11 | .00 | 4.1 | 14 | 6.3 | 26 | 26 | 163 | 18 | 60 | 1.0 | .00 | .00 |
| 12 | .00 | 2.8 | 12 | 5.6 | 28 | 29 | 148 | 17 | 46 | .32 | .00 | .00 |
| 13 | .00 | 1.7 | 9.9 | 5.1 | 25 | 40 | 124 | 14 | 36 | .01 | .00 | .00 |
| 14 | .00 | .90 | 7.8 | 4.3 | 21 | 38 | 93 | 13 | 28 | .00 | .00 | .00 |
| 15 | .00 | .40 | 5.9 | 4.9 | 19 | 35 | 73 | 14 | 22 | .00 | .00 | .00 |
| 16 | .00 | .00 | 4.4 | 5.0 | 16 | 36 | 58 | 14 | 18 | .00 | .00 | .00 |
| 17 | .00 | .00 | 4.3 | 5.2 | 14 | 102 | 46 | 11 | 14 | .00 | .00 | .00 |
| 18 | .00 | .00 | 3.7 | 4.7 | 11 | 189 | 38 | 9.3 | 12 | .00 | .00 | .00 |
| 19 | .15 | .20 | 2.8 | 4.0 | 9.5 | 481 | 33 | 8.3 | 9.7 | .00 | .00 | .00 |
| 20 | 56 | 2.0 | 2.1 | 3.2 | 8.0 | 350 | 44 | 8.8 | 8.4 | .00 | .00 | .00 |
| 21 | 200 | 2.0 | 1.5 | 2.9 | 6.8 | 226 | 292 | 7.5 | 11 | .00 | .00 | .00 |
| 22 | 130 | 8.1 | .81 | 2.8 | 5.8 | 153 | 243 | 6.2 | 11 | .00 | .00 | .00 |
| 23 | 85 | 14 | .31 | 2.6 | 5.2 | 118 | 171 | 5.0 | 10 | .00 | .00 | .00 |
| 24 | 70 | 17 | .00 | 2.4 | 4.2 | 199 | 123 | 3.2 | 8.5 | .00 | .00 | .00 |
| 25 | 55 | 16 | .00 | 2.8 | 5.5 | 196 | 90 | 2.0 | 5.3 | .00 | .00 | .00 |
| 26 | 44 | 14 | .00 | 4.8 | 63 | 151 | 69 | 2.5 | 3.1 | .00 | .00 | .00 |
| 27 | 35 | 32 | .33 | 6.8 | 129 | 119 | 62 | 388 | 2.1 | .00 | .00 | .00 |
| 28 | 28 | 61 | .60 | 8.2 | 139 | 104 | 49 | 563 | 2.4 | .00 | .00 | .00 |
| 29 | 22 | 53 | .24 | 8.9 | 105 | 85 | 40 | 380 | 3.6 | .00 | .00 | .00 |
| 30 | 18 | 42 | .00 | 8.6 | --- | 67 | 37 | 242 | 3.6 | .00 | .00 | .00 |
| 31 | 15 | --- | .00 | 8.3 | --- | 61 | --- | 156 | --- | .00 | .00 | --- |
| TOTAL | 758.15 | 360.00 | 375.69 | 127.93 | 705.0 | 3498 | 3320 | 2148.8 | 766.7 | 20.69 | .00 | .00 |
| MEAN | 24.5 | 12.0 | 12.1 | 4.13 | 24.3 | 113 | 111 | 69.3 | 25.6 | .67 | .000 | .000 |
| MAX | 200 | 61 | 44 | 8.9 | 139 | 481 | 304 | 563 | 104 | 4.9 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | 3.6 | 26 | 33 | 2.0 | 2.1 | .00 | .00 | .00 |
| AC-FT | 1500 | 714 | 745 | 254 | 1400 | 6940 | 6590 | 4260 | 1520 | 41 | .00 | .00 |

CAL YR 1983 TOTAL 4781.75 MEAN 13.1 MAX 609 MIN .00 AC-FT 9480
WTR YR 1984 TOTAL 12080.96 MEAN 33.0 MAX 563 MIN .00 AC-FT 23960

## 07172000 CANEY RIVER NEAR ELGIN, KS

LOCATION.--Lat 37 deg 00 min 13 sec, long 96 deg 18 min 54 sec, in NW1/4 NW1/4 SE1/4 sec.16, T.35 S., R.10 E., Chautauqua County, Hydrologic Unit 11070106, at county highway bridge, 2 mi west of Elgin, and at mile 117.8.

DRAINAGE AREA.--445 sq mi.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 763.32 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Sept. 13, 1961, at site 300 ft downstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--46 years, 233 cu ft per sec, 168,800 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,000 cu ft per sec Sept. 13, 1961, gage height, 34.70 ft, from floodmarks; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,600 cu ft per sec Mar. 23, gage height, 13.52 ft, no other peak above base of 6,000 cu ft per sec; minimum, 0.01 cu ft per sec Sept. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .44 | 16 | 29 | 19 | 24 | 326 | 1810 | 470 | 310 | 61 | 2.0 | .66 |
| 2 | .44 | 13 | 26 | 20 | 23 | 275 | 1290 | 384 | 244 | 46 | 1.5 | .66 |
| 3 | .34 | 13 | 54 | 20 | 22 | 238 | 1310 | 336 | 208 | 37 | 1.3 | .53 |
| 4 | .19 | 12 | 163 | 22 | 22 | 1250 | 985 | 306 | 186 | 30 | 1.4 | .43 |
| 5 | .19 | 11 | 105 | 26 | 20 | 758 | 789 | 278 | 168 | 26 | 1.2 | .34 |
| 6 | .12 | 13 | 85 | 31 | 19 | 477 | 665 | 354 | 149 | 21 | 1.2 | .26 |
| 7 | .12 | 14 | 68 | 32 | 18 | 371 | 798 | 414 | 128 | 17 | 1.1 | .07 |
| 8 | .19 | 14 | 61 | 33 | 18 | 296 | 3680 | 334 | 132 | 15 | 1.1 | .03 |
| 9 | .19 | 13 | 54 | 31 | 19 | 246 | 1940 | 288 | 730 | 14 | 1.1 | .07 |
| 10 | .19 | 14 | 50 | 29 | 22 | 218 | 1510 | 253 | 1610 | 13 | .78 | .07 |
| 11 | .44 | 14 | 47 | 27 | 25 | 195 | 1350 | 230 | 867 | 12 | 1.1 | .07 |
| 12 | .34 | 13 | 45 | 25 | 26 | 411 | 2000 | 193 | 685 | 12 | 1.1 | .12 |
| 13 | .34 | 13 | 43 | 25 | 26 | 485 | 1200 | 176 | 581 | 11 | 1.1 | .95 |
| 14 | .19 | 13 | 41 | 24 | 24 | 363 | 885 | 161 | 456 | 10 | 1.1 | 1.2 |
| 15 | .19 | 16 | 37 | 23 | 24 | 314 | 743 | 1120 | 362 | 9.6 | 1.1 | .92 |
| 16 | .26 | 15 | 35 | 23 | 23 | 330 | 654 | 1380 | 276 | 9.2 | 1.1 | .78 |
| 17 | 2.5 | 14 | 31 | 22 | 23 | 2390 | 559 | 686 | 199 | 8.4 | .92 | .64 |
| 18 | 2.8 | 12 | 28 | 23 | 23 | 2520 | 501 | 486 | 150 | 8.2 | .92 | .78 |
| 19 | 1.7 | 13 | 26 | 22 | 24 | 4670 | 465 | 390 | 115 | 6.9 | 1.1 | .68 |
| 20 | 259 | 14 | 25 | 21 | 24 | 2350 | 510 | 571 | 94 | 6.3 | 1.1 | .66 |
| 21 | 877 | 13 | 25 | 21 | 24 | 1510 | 957 | 438 | 82 | 6.1 | 1.2 | .51 |
| 22 | 157 | 15 | 24 | 20 | 24 | 1120 | 708 | 338 | 75 | 5.5 | 1.7 | .54 |
| 23 | 81 | 19 | 22 | 21 | 22 | 4640 | 538 | 283 | 68 | 4.6 | 1.7 | .54 |
| 24 | 54 | 24 | 21 | 22 | 22 | 5290 | 448 | 237 | 68 | 4.1 | 1.6 | .44 |
| 25 | 40 | 22 | 20 | 22 | 23 | 2340 | 360 | 208 | 55 | 3.7 | 1.7 | .26 |
| 26 | 31 | 20 | 20 | 23 | 384 | 1500 | 321 | 180 | 48 | 3.0 | 1.7 | .12 |
| 27 | 26 | 36 | 20 | 25 | 876 | 1180 | 434 | 614 | 44 | 3.6 | 1.7 | .12 |
| 28 | 22 | 48 | 22 | 27 | 582 | 2060 | 371 | 1590 | 37 | 3.4 | 1.7 | .19 |
| 29 | 18 | 37 | 22 | 27 | 401 | 1670 | 300 | 741 | 45 | 3.0 | 1.6 | .12 |
| 30 | 16 | 34 | 20 | 26 | --- | 1050 | 746 | 527 | 53 | 2.6 | 1.0 | .07 |
| 31 | 15 | --- | 19 | 25 | --- | 1540 | --- | 405 | --- | 2.1 | .92 | --- |
| TOTAL | 1607.17 | 536 | 1288 | 757 | 2807 | 42383 | 28807 | 14371 | 8225 | 415.3 | 39.84 | 12.83 |
| MEAN | 51.8 | 17.9 | 41.5 | 24.4 | 96.8 | 1367 | 960 | 464 | 274 | 13.4 | 1.29 | .43 |
| MAX | 877 | 48 | 163 | 33 | 876 | 5290 | 3680 | 1590 | 1610 | 61 | 2.0 | 1.2 |
| MIN | .12 | 11 | 19 | 19 | 18 | 195 | 300 | 161 | 37 | 2.1 | .78 | .03 |
| AC-FT | 3190 | 1060 | 2550 | 1500 | 5570 | 84070 | 57140 | 28500 | 16310 | 824 | 79 | 25 |

CAL YR 1983 TOTAL 84049.32 MEAN 233 MAX 5870 MIN .01 AC-FT 166700
WTR YR 1984 TOTAL 101249.14 MEAN 277 MAX 5290 MIN .03 AC-FT 200800

## 07179400 COUNCIL GROVE LAKE NEAR COUNCIL GROVE, KS

LOCATION.--Lat 38 deg 40 min 45 sec, long 96 deg 30 min 25 sec, in NE1/4 NE1/4 sec.10, T.16 S., R.8 E., Morris County, Hydrologic Unit 11070201, in control tower near right end of Council Grove Dam on Neosho River, 1.0 mi northwest of Council Grove, and at mile 449.7.

DRAINAGE AREA.--246 sq mi.

PERIOD OF RECORD.--October 1964 to current year. Prior to October 1971 published as "Council Grove Reservoir."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. The spillway is a limited service, uncontrolled, emergency type having a width of 500 ft. The outlet works consist of a cut and cover conduit 17 ft in diameter. Regulated storage began October 9, 1964. Maximum pool, 265,400 acre-ft at elevation 1,310.0 ft; top of flood control pool, 112,300 acre-ft at elevation 1,289.0 ft and top of conservation pool, 36,310 acre-ft at elevation 1,270.0 ft. The reservoir is used for flood control, conservation, and related beneficial water uses. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,284.64 ft June 26, 1977, contents, 90,530 acre-ft; minimum since conservation pool first filled, 1,265.79 ft Mar. 30, 1967, contents, 27,300 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,278.55 ft May 1, contents, 64,620 acre-ft; minimum, 1,270.00 ft Feb. 14, 15, contents, 36,310 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made in 1977 by Corps of Engineers)

| | | | |
|---|---|---|---|
| 1,265 | 23,380 | 1,280 | 70,340 |
| 1,270 | 36,310 | 1,285 | 92,210 |
| 1,275 | 51,820 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1271.10 | 1271.08 | 1272.76 | 1270.12 | 1270.42 | 1270.05 | 1273.11 | 1278.44 | 1273.73 | 1273.78 | 1272.31 | 1271.52 |
| 2 | 1271.06 | 1271.10 | 1272.77 | 1270.14 | 1270.40 | 1270.05 | 1273.70 | 1278.11 | 1273.42 | 1273.65 | 1272.28 | 1271.55 |
| 3 | 1271.08 | 1271.10 | 1272.82 | 1270.16 | 1270.37 | 1270.12 | 1274.10 | 1277.44 | 1273.20 | 1273.53 | 1272.25 | 1271.52 |
| 4 | 1271.09 | 1271.09 | 1272.82 | 1270.18 | 1270.34 | 1270.19 | 1273.92 | 1276.46 | 1273.15 | 1273.44 | 1272.22 | 1271.49 |
| 5 | 1271.08 | 1271.07 | 1272.84 | 1270.20 | 1270.29 | 1270.19 | 1273.67 | 1275.44 | 1273.17 | 1273.34 | 1272.20 | 1271.45 |
| 6 | 1271.05 | 1271.06 | 1272.83 | 1270.27 | 1270.25 | 1270.16 | 1273.53 | 1274.43 | 1273.23 | 1273.20 | 1272.18 | 1271.36 |
| 7 | 1271.03 | 1271.08 | 1272.83 | 1270.46 | 1270.20 | 1270.15 | 1274.02 | 1273.48 | 1273.24 | 1273.06 | 1272.17 | 1271.32 |
| 8 | 1271.02 | 1271.10 | 1272.83 | 1270.74 | 1270.16 | 1270.07 | 1275.61 | 1273.02 | 1273.29 | 1272.93 | 1272.14 | 1271.33 |
| 9 | 1271.01 | 1271.19 | 1272.82 | 1270.85 | 1270.14 | 1270.06 | 1275.87 | 1272.94 | 1273.40 | 1272.83 | 1272.12 | 1271.33 |
| 10 | 1270.98 | 1271.26 | 1272.83 | 1270.73 | 1270.12 | 1270.06 | 1275.74 | 1273.04 | 1273.42 | 1272.81 | 1272.09 | 1271.33 |
| 11 | 1271.10 | 1271.27 | 1272.83 | 1270.58 | 1270.10 | 1270.08 | 1275.59 | 1273.12 | 1273.41 | 1272.79 | 1272.05 | 1271.31 |
| 12 | 1271.08 | 1271.29 | 1272.60 | 1270.40 | 1270.08 | 1270.11 | 1275.42 | 1273.19 | 1273.34 | 1272.78 | 1272.02 | 1271.28 |
| 13 | 1271.06 | 1271.29 | 1272.28 | 1270.30 | 1270.06 | 1270.13 | 1275.18 | 1273.27 | 1273.59 | 1272.76 | 1272.00 | 1271.27 |
| 14 | 1271.00 | 1271.32 | 1271.91 | 1270.26 | 1270.00 | 1270.13 | 1274.91 | 1273.31 | 1273.60 | 1272.75 | 1271.97 | 1271.27 |
| 15 | 1271.03 | 1271.31 | 1271.54 | 1270.24 | 1270.08 | 1270.20 | 1274.63 | 1273.50 | 1273.56 | 1272.73 | 1271.94 | 1271.23 |
| 16 | 1271.02 | 1271.30 | 1271.26 | 1270.19 | 1270.15 | 1270.36 | 1274.33 | 1273.65 | 1273.51 | 1272.72 | 1271.91 | 1271.19 |
| 17 | 1271.00 | 1271.31 | 1271.07 | 1270.16 | 1270.15 | 1271.14 | 1274.03 | 1273.70 | 1273.46 | 1272.71 | 1271.87 | 1271.18 |
| 18 | 1270.97 | 1271.32 | 1270.88 | 1270.11 | 1270.19 | 1272.84 | 1273.73 | 1273.75 | 1273.51 | 1272.67 | 1271.85 | 1271.16 |
| 19 | 1271.05 | 1271.34 | 1270.68 | 1270.06 | 1270.19 | 1274.16 | 1273.40 | 1273.85 | 1273.35 | 1272.65 | 1271.81 | 1271.15 |
| 20 | 1271.05 | 1271.32 | 1270.51 | 1270.03 | 1270.17 | 1274.85 | 1273.34 | 1273.90 | 1273.29 | 1272.63 | 1271.78 | 1271.13 |
| 21 | 1271.10 | 1271.33 | 1270.32 | 1270.03 | 1270.15 | 1275.66 | 1273.83 | 1273.94 | 1273.52 | 1272.60 | 1271.88 | 1271.09 |
| 22 | 1271.09 | 1271.38 | 1270.13 | 1270.04 | 1270.15 | 1275.56 | 1274.02 | 1274.01 | 1273.67 | 1272.57 | 1271.86 | 1271.08 |
| 23 | 1271.09 | 1271.36 | 1270.04 | 1270.05 | 1270.14 | 1275.11 | 1274.09 | 1274.02 | 1274.37 | 1272.56 | 1271.83 | 1271.05 |
| 24 | 1271.08 | 1271.35 | 1270.03 | 1270.06 | 1270.11 | 1275.25 | 1274.16 | 1274.03 | 1274.39 | 1272.55 | 1271.78 | 1271.07 |
| 25 | 1271.07 | 1271.34 | 1270.03 | 1270.07 | 1270.10 | 1274.89 | 1274.18 | 1274.08 | 1274.36 | 1272.53 | 1271.74 | 1271.00 |
| 26 | 1271.06 | 1271.44 | 1270.02 | 1270.14 | 1270.11 | 1274.88 | 1274.31 | 1274.09 | 1274.27 | 1272.51 | 1271.81 | 1270.96 |
| 27 | 1271.04 | 1272.88 | 1270.05 | 1270.26 | 1270.11 | 1274.56 | 1274.78 | 1274.16 | 1274.24 | 1272.47 | 1271.69 | 1270.96 |
| 28 | 1271.05 | 1273.16 | 1270.06 | 1270.32 | 1270.08 | 1274.19 | 1274.84 | 1274.17 | 1274.14 | 1272.44 | 1271.69 | 1270.93 |
| 29 | 1271.06 | 1272.89 | 1270.07 | 1270.40 | 1270.05 | 1273.90 | 1277.83 | 1274.18 | 1274.02 | 1272.41 | 1271.65 | 1270.90 |
| 30 | 1271.07 | 1272.76 | 1270.08 | 1270.45 | --- | 1273.50 | 1278.48 | 1274.20 | 1273.90 | 1272.38 | 1271.62 | 1270.88 |
| 31 | 1271.04 | --- | 1270.10 | 1270.45 | --- | 1273.21 | --- | 1274.01 | --- | 1272.34 | 1271.56 | --- |
| MEAN | 1271.05 | 1271.47 | 1271.44 | 1270.27 | 1270.17 | 1272.12 | 1274.61 | 1274.29 | 1273.63 | 1272.81 | 1271.94 | 1271.21 |
| MAX | 1271.10 | 1273.16 | 1272.84 | 1270.85 | 1270.42 | 1275.66 | 1278.48 | 1278.44 | 1274.39 | 1273.78 | 1272.31 | 1271.55 |
| MIN | 1270.97 | 1271.07 | 1270.02 | 1270.03 | 1270.00 | 1270.05 | 1273.11 | 1272.94 | 1273.15 | 1272.34 | 1271.56 | 1270.88 |
| (+) | 39,330 | 44,550 | 36,600 | 37,600 | 36,460 | 45,970 | 64,350 | 48,540 | 48,180 | 43,250 | 40,880 | 38,860 |
| (#) | -270 | +5,220 | -7,950 | +1,000 | -1,140 | +9,510 | +18,380 | -15,810 | -360 | -4,930 | -2,370 | -2,020 |

CAL YR 1983 ........................ (#) -110
WTR YR 1984 ........................ (#) -740

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 07179500 NEOSHO RIVER AT COUNCIL GROVE, KS

LOCATION.--Lat 38 deg 39 min 54 sec, long 96 deg 29 min 38 sec, in NE1/4 NW1/4 sec.14, T.16 S., R.8 E., Morris County, Hydrologic Unit 11070201, on downstream side of highway bridge at city water plant in north part of Council Grove, 300 ft downstream from Mozler Creek, 1.0 mi upstream from Elm Creek, 1.7 mi downstream from Council Grove Lake, and at mile 448.0.

DRAINAGE AREA.--250 sq mi.

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1341: 1939-40(M), 1942.

GAGE.--Water-stage recorder. Datum of gage is 1,205.63 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to June 7, 1940, nonrecording gage at present site and datum.

REMARKS.--Records good. Flow completely regulated since 1964 by Council Grove Lake (see sta 07179400).

AVERAGE DISCHARGE.--46 years, 122 cu ft per sec, 88,390 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 121,000 cu ft per sec July 11, 1951, gage height, 35.5 ft; 36.29 ft, top of surge in gage house; 37.97 ft, floodmark at water plant and in wire-weight gage box at upstream side of bridge, from rating curve extended above 36,000 cu ft per sec, on basis of slope-area measurement of peak flow; maximum discharge since closure of Council Grove Dam in 1964, 6,600 cu ft per sec June 26, 1969; no flow at times in 1938-41, 1947-48, 1954-57, 1963-64, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1903 reached a stage of 37.3 ft at water plant, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,360 cu ft per sec May 3, gage height, 12.31 ft; minimum discharge, 3.5 cu ft per sec June 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.3 | 7.3 | 31 | 4.7 | 91 | 58 | 324 | 491 | 529 | 213 | 22 | 12 |
| 2 | 5.3 | 7.7 | 31 | 4.7 | 92 | 37 | 105 | 1170 | 526 | 213 | 15 | 12 |
| 3 | 5.3 | 8.4 | 31 | 4.8 | 92 | 16 | 353 | 1730 | 399 | 215 | 15 | 12 |
| 4 | 4.9 | 9.6 | 31 | 4.7 | 92 | 17 | 578 | 2310 | 102 | 214 | 16 | 12 |
| 5 | 4.5 | 8.5 | 31 | 4.9 | 92 | 51 | 574 | 2260 | 4.2 | 214 | 16 | 12 |
| 6 | 4.6 | 8.9 | 32 | 7.8 | 92 | 98 | 394 | 2210 | 11 | 214 | 16 | 12 |
| 7 | 4.6 | 8.7 | 32 | 27 | 92 | 97 | 269 | 1920 | 17 | 211 | 13 | 12 |
| 8 | 4.6 | 6.0 | 32 | 28 | 92 | 98 | 279 | 868 | 17 | 212 | 13 | 12 |
| 9 | 4.6 | 6.7 | 32 | 139 | 92 | 56 | 389 | 245 | 25 | 151 | 13 | 12 |
| 10 | 4.6 | 7.1 | 32 | 290 | 75 | 22 | 590 | 11 | 22 | 53 | 13 | 12 |
| 11 | 4.6 | 6.2 | 31 | 288 | 59 | 22 | 590 | 4.6 | 48 | 9.0 | 13 | 13 |
| 12 | 4.6 | 6.0 | 315 | 289 | 58 | 22 | 586 | 6.2 | 91 | 8.5 | 13 | 12 |
| 13 | 4.3 | 6.0 | 58 | 185 | 58 | 23 | 582 | 12 | 99 | 9.5 | 14 | 13 |
| 14 | 4.3 | 6.1 | 516 | 86 | 59 | 23 | 578 | 13 | 92 | 11 | 14 | 13 |
| 15 | 4.4 | 6.3 | 515 | 86 | 60 | 25 | 578 | 13 | 91 | 11 | 13 | 13 |
| 16 | 4.6 | 6.0 | 430 | 86 | 60 | 18 | 578 | 13 | 91 | 11 | 14 | 13 |
| 17 | 4.6 | 6.0 | 290 | 86 | 60 | 16 | 574 | 13 | 92 | 11 | 13 | 13 |
| 18 | 4.6 | 6.0 | 290 | 86 | 60 | 20 | 574 | 14 | 92 | 11 | 14 | 12 |
| 19 | 4.6 | 6.0 | 289 | 86 | 59 | 18 | 574 | 14 | 91 | 11 | 14 | 13 |
| 20 | 4.6 | 6.1 | 284 | 54 | 58 | 280 | 322 | 14 | 90 | 11 | 14 | 13 |
| 21 | 5.2 | 6.3 | 284 | 23 | 58 | 895 | 105 | 13 | 90 | 11 | 14 | 13 |
| 22 | 5.1 | 6.8 | 284 | 23 | 59 | 1110 | 98 | 16 | 96 | 11 | 13 | 13 |
| 23 | 4.9 | 6.6 | 217 | 23 | 59 | 1100 | 92 | 20 | 95 | 11 | 13 | 13 |
| 24 | 4.9 | 6.0 | 27 | 23 | 58 | 1100 | 94 | 22 | 91 | 11 | 13 | 13 |
| 25 | 4.9 | 6.0 | 27 | 23 | 58 | 1100 | 96 | 26 | 139 | 11 | 13 | 13 |
| 26 | 4.9 | 6.5 | 27 | 24 | 59 | 1160 | 96 | 52 | 218 | 12 | 12 | 13 |
| 27 | 4.9 | 13 | 20 | 23 | 58 | 1230 | 96 | 56 | 213 | 16 | 12 | 13 |
| 28 | 5.3 | 229 | 5.0 | 24 | 58 | 1210 | 96 | 53 | 213 | 15 | 12 | 13 |
| 29 | 7.1 | 497 | 4.3 | 24 | 58 | 1210 | 120 | 51 | 214 | 16 | 12 | 13 |
| 30 | 6.8 | 253 | 4.3 | 57 | --- | 896 | 105 | 41 | 213 | 14 | 11 | 13 |
| 31 | 7.0 | --- | 4.6 | 91 | --- | 625 | --- | 339 | --- | 18 | 11 | --- |
| TOTAL | 154.5 | 1169.8 | 4237.2 | 2205.6 | 2018 | 12653 | 10389 | 14020.8 | 4111.2 | 2160.0 | 424 | 378 |
| MEAN | 4.98 | 39.0 | 137 | 71.1 | 69.6 | 408 | 346 | 452 | 137 | 69.7 | 13.7 | 12.6 |
| MAX | 7.1 | 497 | 516 | 290 | 92 | 1230 | 590 | 2310 | 529 | 215 | 22 | 13 |
| MIN | 4.3 | 6.0 | 4.3 | 4.7 | 58 | 16 | 92 | 4.6 | 4.2 | 8.5 | 11 | 12 |
| AC-FT | 306 | 2320 | 8400 | 4370 | 4000 | 25100 | 20610 | 27810 | 8150 | 4280 | 841 | 750 |

CAL YR 1983 TOTAL 69539.4 MEAN 191 MAX 2570 MIN 1.5 AC-FT 137900
WTR YR 1984 TOTAL 53921.1 MEAN 147 MAX 2310 MIN 4.2 AC-FT 107000

## 07179730 NEOSHO RIVER NEAR AMERICUS, KS

LOCATION.--Lat 38 deg 28 min 01 sec, long 96 deg 15 min 01 sec, in SW1/4 NW1/4 SE1/4 sec.24, T.18 S., R.10 E., Lyon County, Hydrologic Unit 11070201, near right bank, 0.1 mi below Ruggles Dam, 2.0 mi south of Americus, 12.5 mi upstream from Allen Creek, and 24.0 mi upstream from Cottonwood River.

DRAINAGE AREA.--622 sq mi.

PERIOD OF RECORD.--June 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,106.99 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Aug. 8, 1963, water-stage recorder at site 0.4 mi upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Flow moderately regulated since 1964 by Council Grove Lake (see sta 07179400). Low flow occasionally regulated by Ruggles Dam 0.1 mi upstream. Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--21 years, 308 cu ft per sec, 223,100 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,900 cu ft per sec June 27, 1969, gage height, 28.30 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,130 cu ft per sec Mar. 19, gage height, 23.62 ft; minimum discharge, 5.4 cu ft per sec Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.8 | 15 | 302 | 54 | 176 | 149 | 988 | 1230 | 447 | 293 | 28 | 19 |
| 2 | 8.7 | 19 | 110 | 53 | 169 | 148 | 766 | 1350 | 581 | 286 | 42 | 22 |
| 3 | 12 | 18 | 107 | 51 | 165 | 130 | 1790 | 2500 | 570 | 280 | 36 | 19 |
| 4 | 10 | 19 | 110 | 52 | 160 | 413 | 1180 | 2460 | 426 | 277 | 26 | 17 |
| 5 | 8.4 | 14 | 108 | 56 | 157 | 486 | 1030 | 2400 | 217 | 271 | 25 | 15 |
| 6 | 10 | 12 | 101 | 87 | 138 | 237 | 944 | 2300 | 125 | 267 | 27 | 14 |
| 7 | 12 | 11 | 96 | 185 | 149 | 236 | 788 | 2200 | 957 | 286 | 31 | 13 |
| 8 | 11 | 9.9 | 89 | 421 | 141 | 217 | 4440 | 1800 | 525 | 264 | 29 | 16 |
| 9 | 9.8 | 13 | 92 | 495 | 146 | 198 | 4290 | 998 | 3700 | 254 | 25 | 18 |
| 10 | 11 | 57 | 87 | 493 | 147 | 169 | 1410 | 455 | 5230 | 200 | 22 | 20 |
| 11 | 20 | 90 | 87 | 548 | 135 | 133 | 1360 | 292 | 943 | 134 | 21 | 16 |
| 12 | 21 | 55 | 86 | 432 | 115 | 134 | 1610 | 256 | 527 | 70 | 19 | 15 |
| 13 | 20 | 43 | 421 | 457 | 111 | 141 | 1280 | 243 | 1360 | 61 | 19 | 15 |
| 14 | 12 | 29 | 598 | 300 | 108 | 140 | 1040 | 225 | 1210 | 59 | 17 | 15 |
| 15 | 9.1 | 24 | 589 | 160 | 110 | 152 | 978 | 209 | 438 | 57 | 18 | 14 |
| 16 | 9.1 | 21 | 580 | 150 | 293 | 149 | 948 | 210 | 344 | 56 | 17 | 15 |
| 17 | 7.3 | 19 | 500 | 150 | 311 | 1350 | 910 | 203 | 304 | 53 | 16 | 16 |
| 18 | 7.5 | 19 | 350 | 145 | 217 | 1610 | 876 | 187 | 279 | 51 | 14 | 16 |
| 19 | 13 | 18 | 340 | 140 | 277 | 6060 | 853 | 260 | 256 | 47 | 14 | 16 |
| 20 | 16 | 17 | 330 | 140 | 202 | 2660 | 888 | 1650 | 240 | 41 | 17 | 15 |
| 21 | 17 | 17 | 320 | 110 | 171 | 4110 | 2150 | 461 | 238 | 36 | 21 | 14 |
| 22 | 15 | 18 | 315 | 79 | 162 | 2500 | 1470 | 279 | 309 | 32 | 24 | 14 |
| 23 | 13 | 19 | 310 | 81 | 158 | 1730 | 754 | 236 | 2140 | 30 | 25 | 14 |
| 24 | 12 | 18 | 250 | 81 | 150 | 1970 | 531 | 212 | 868 | 29 | 21 | 15 |
| 25 | 11 | 19 | 150 | 84 | 144 | 2190 | 443 | 206 | 349 | 28 | 20 | 16 |
| 26 | 10 | 20 | 100 | 132 | 145 | 2150 | 430 | 171 | 339 | 27 | 20 | 14 |
| 27 | 10 | 475 | 80 | 180 | 151 | 3130 | 867 | 176 | 385 | 28 | 18 | 15 |
| 28 | 10 | 1550 | 60 | 169 | 165 | 1940 | 570 | 210 | 366 | 29 | 17 | 15 |
| 29 | 9.5 | 614 | 58 | 148 | 156 | 1790 | 1070 | 188 | 323 | 33 | 15 | 15 |
| 30 | 11 | 647 | 56 | 149 | --- | 1660 | 5080 | 163 | 303 | 32 | 14 | 14 |
| 31 | 11 | --- | 55 | 156 | --- | 1160 | --- | 159 | --- | 32 | 15 | --- |
| TOTAL | 365.2 | 3919.9 | 6837 | 5988 | 4829 | 39242 | 41734 | 23889 | 24319 | 3643 | 673 | 472 |
| MEAN | 11.8 | 131 | 221 | 193 | 167 | 1266 | 1391 | 771 | 811 | 118 | 21.7 | 15.7 |
| MAX | 21 | 1550 | 598 | 548 | 311 | 6060 | 5080 | 2500 | 5230 | 293 | 42 | 22 |
| MIN | 7.3 | 9.9 | 55 | 51 | 108 | 130 | 430 | 159 | 125 | 27 | 14 | 13 |
| AC-FT | 724 | 7780 | 13560 | 11880 | 9580 | 77840 | 82780 | 47380 | 48240 | 7230 | 1330 | 936 |

CAL YR 1983 TOTAL 185133.5 MEAN 507 MAX 8180 MIN 7.3 AC-FT 367200
WTR YR 1984 TOTAL 155911.1 MEAN 426 MAX 6060 MIN 7.3 AC-FT 309200

## 07179794 MARION LAKE NEAR MARION, KS

LOCATION.--Lat 38 deg 22 min 20 sec, long 97 deg 04 min 55 sec, in NE1/4 sec.27, T.19 S., R.3 E., Marion County, Hydrologic Unit 11070202, on top of dam on Cottonwood River, 3.0 mi northwest of Marion, and at mile 126.7.

DRAINAGE AREA.--200 sq mi.

PERIOD OF RECORD.--February 1968 to current year. Prior to October 1971 published as "Marion Reservoir."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Regulated storage began Feb. 26, 1968. Total capacity, 186,500 acre-ft consisting of the following: Dead storage, 363 acre-ft below elevation 1,320.0 ft; conservation, 83,330 acre-ft between elevations 1,320.0 and 1,350.5 ft; flood control, 60,210 acre-ft between elevations 1,350.5 ft and 1,358.5 ft; uncontrolled storage, 42,600 acre-ft between elevations 1,358.5 ft and 1,362.8 ft. Reservoir is used for flood control, water quality control, water supply, recreation, and fish and wildlife conservation. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,356.66 ft Oct. 13, 1973, contents, 130,600 acre-ft; minimum since conservation pool first filled, 1,346.81 ft Nov. 9, 1978, contents, 62,710 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,353.22 ft Mar. 24, contents, 101,700 acre-ft; minimum, 1,348.29 ft Sept. 30, contents, 70,680 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made in 1977 by Corps of Engineers)

| | | | |
|---|---|---|---|
| 1,345 | 53,730 | 1,355 | 114,700 |
| 1,350 | 80,640 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1348.60 | 1348.67 | 1348.90 | 1349.03 | 1349.46 | 1349.61 | 1350.69 | 1352.31 | 1350.71 | 1350.48 | 1349.61 | 1348.85 |
| 2 | 1348.56 | 1348.69 | 1348.91 | 1349.03 | 1349.46 | 1349.60 | 1350.80 | 1352.18 | 1350.69 | 1350.45 | 1349.58 | 1348.88 |
| 3 | 1348.59 | 1348.70 | 1348.94 | 1349.03 | 1349.47 | 1349.67 | 1350.84 | 1351.92 | 1350.68 | 1350.43 | 1349.56 | 1348.84 |
| 4 | 1348.56 | 1348.67 | 1348.95 | 1349.04 | 1349.48 | 1349.65 | 1351.01 | 1351.65 | 1350.65 | 1350.42 | 1349.54 | 1348.82 |
| 5 | 1348.56 | 1348.67 | 1348.96 | 1349.06 | 1349.46 | 1349.66 | 1351.03 | 1351.37 | 1350.65 | 1350.40 | 1349.52 | 1348.77 |
| 6 | 1348.51 | 1348.71 | 1348.95 | 1349.07 | 1349.47 | 1349.69 | 1350.97 | 1351.13 | 1350.66 | 1350.38 | 1349.49 | 1348.69 |
| 7 | 1348.51 | 1348.68 | 1348.95 | 1349.10 | 1349.48 | 1349.56 | 1351.17 | 1350.83 | 1350.66 | 1350.34 | 1349.53 | 1348.65 |
| 8 | 1348.49 | 1348.68 | 1348.95 | 1349.15 | 1349.49 | 1349.65 | 1351.60 | 1350.65 | 1350.79 | 1350.29 | 1349.48 | 1348.66 |
| 9 | 1348.47 | 1348.71 | 1348.95 | 1349.17 | 1349.51 | 1349.66 | 1351.62 | 1350.58 | 1350.86 | 1350.25 | 1349.47 | 1348.66 |
| 10 | 1348.43 | 1348.76 | 1348.96 | 1349.17 | 1349.53 | 1349.66 | 1351.56 | 1350.62 | 1350.86 | 1350.24 | 1349.44 | 1348.67 |
| 11 | 1348.57 | 1348.72 | 1348.95 | 1349.19 | 1349.54 | 1349.66 | 1351.66 | 1350.62 | 1350.83 | 1350.22 | 1349.42 | 1348.58 |
| 12 | 1348.56 | 1348.75 | 1348.95 | 1349.20 | 1349.54 | 1349.67 | 1351.79 | 1350.64 | 1350.84 | 1350.18 | 1349.39 | 1348.57 |
| 13 | 1348.52 | 1348.75 | 1348.97 | 1349.20 | 1349.54 | 1349.69 | 1351.61 | 1350.66 | 1350.86 | 1350.16 | 1349.37 | 1348.56 |
| 14 | 1348.45 | 1348.75 | 1349.00 | 1349.20 | 1349.51 | 1349.66 | 1351.60 | 1350.64 | 1350.87 | 1350.15 | 1349.34 | 1348.54 |
| 15 | 1348.50 | 1348.75 | 1348.95 | 1349.24 | 1349.57 | 1349.70 | 1351.50 | 1350.62 | 1350.97 | 1350.11 | 1349.31 | 1348.50 |
| 16 | 1348.49 | 1348.74 | 1348.93 | 1349.24 | 1349.59 | 1349.85 | 1351.41 | 1350.63 | 1350.94 | 1350.09 | 1349.27 | 1348.46 |
| 17 | 1348.47 | 1348.75 | 1348.94 | 1349.26 | 1349.58 | 1349.98 | 1351.29 | 1350.63 | 1350.94 | 1350.05 | 1349.26 | 1348.52 |
| 18 | 1348.45 | 1348.75 | 1348.94 | 1349.25 | 1349.59 | 1351.26 | 1351.19 | 1350.63 | 1350.91 | 1350.02 | 1349.23 | 1348.52 |
| 19 | 1348.52 | 1348.75 | 1348.94 | 1349.26 | 1349.59 | 1352.00 | 1351.06 | 1350.68 | 1350.86 | 1349.98 | 1349.20 | 1348.50 |
| 20 | 1348.56 | 1348.73 | 1348.99 | 1349.26 | 1349.60 | 1352.26 | 1350.95 | 1350.68 | 1350.82 | 1349.94 | 1349.16 | 1348.47 |
| 21 | 1348.53 | 1348.75 | 1349.00 | 1349.27 | 1349.60 | 1352.89 | 1351.07 | 1350.67 | 1350.81 | 1349.90 | 1349.20 | 1348.43 |
| 22 | 1348.65 | 1348.75 | 1348.99 | 1349.27 | 1349.64 | 1353.02 | 1351.04 | 1350.70 | 1350.80 | 1349.88 | 1349.18 | 1348.45 |
| 23 | 1348.65 | 1348.75 | 1349.00 | 1349.27 | 1349.58 | 1353.00 | 1350.99 | 1350.67 | 1351.10 | 1349.85 | 1349.13 | 1348.40 |
| 24 | 1348.64 | 1348.75 | 1348.98 | 1349.28 | 1349.60 | 1353.22 | 1350.92 | 1350.62 | 1351.08 | 1349.83 | 1349.09 | 1348.40 |
| 25 | 1348.64 | 1348.71 | 1348.99 | 1349.28 | 1349.56 | 1353.06 | 1350.82 | 1350.66 | 1350.99 | 1349.82 | 1349.07 | 1348.37 |
| 26 | 1348.63 | 1348.83 | 1349.00 | 1349.32 | 1349.64 | 1352.90 | 1351.06 | 1350.63 | 1350.84 | 1349.79 | 1349.03 | 1348.34 |
| 27 | 1348.60 | 1348.89 | 1349.03 | 1349.34 | 1349.51 | 1352.46 | 1351.52 | 1350.75 | 1350.67 | 1349.75 | 1349.04 | 1348.36 |
| 28 | 1348.62 | 1348.91 | 1349.01 | 1349.37 | 1349.59 | 1352.04 | 1351.50 | 1350.74 | 1350.55 | 1349.72 | 1349.03 | 1348.32 |
| 29 | 1348.64 | 1348.92 | 1349.01 | 1349.42 | 1349.58 | 1351.62 | 1352.06 | 1350.74 | 1350.35 | 1349.69 | 1349.00 | 1348.31 |
| 30 | 1348.64 | 1348.91 | 1349.02 | 1349.42 | --- | 1351.18 | 1352.33 | 1350.71 | 1350.51 | 1349.65 | 1348.96 | 1348.29 |
| 31 | 1348.63 | --- | 1349.03 | 1349.44 | --- | 1350.92 | --- | 1350.67 | --- | 1349.63 | 1348.91 | --- |
| MEAN | 1348.56 | 1348.75 | 1348.97 | 1349.22 | 1349.54 | 1350.85 | 1351.29 | 1350.88 | 1350.80 | 1350.07 | 1349.28 | 1348.55 |
| MAX | 1348.65 | 1348.92 | 1349.03 | 1349.44 | 1349.64 | 1353.22 | 1352.33 | 1352.31 | 1351.10 | 1350.48 | 1349.61 | 1348.88 |
| MIN | 1348.43 | 1348.67 | 1348.90 | 1349.03 | 1349.46 | 1349.56 | 1350.69 | 1350.58 | 1350.51 | 1349.63 | 1348.91 | 1348.29 |
| (+) | 72,590 | 74,200 | 74,910 | 77,320 | 78,150 | 86,330 | 95,530 | 84,750 | 83,750 | 78,440 | 74,200 | 70,680 |
| (#) | -120 | +1,610 | +710 | +2,410 | +830 | +8,180 | +9,200 | -10,780 | -1,000 | -5,310 | -4,240 | -3,520 |

CAL YR 1983 ...................... (#) +300
WTR YR 1984 ...................... (#) -2,030

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 07179795 COTTONWOOD RIVER BELOW MARION LAKE, KS

LOCATION.--Lat 38 deg 22 min 00 sec, long 97 deg 05 min 00 sec, in SE1/4 sec.27, T.19 S., R.3 E., Marion County, Hydrologic Unit 11070202, on left bank, 0.25 mi below outlet of dam, 1.6 mi upstream from South Fork Cottonwood River, 3.0 mi northwest of Marion, and at mile 126.5.

DRAINAGE AREA.--200 sq mi.

PERIOD OF RECORD.--July 1968 to current year. Prior to Oct. 1, 1972, published as "below Marion Reservoir."

REVISED RECORDS.--WDR KS-77: 1976.

GAGE.--Water-stage recorder. Datum of gage is 1,296.57 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flow completely regulated since 1968 by Marion Lake 0.25 mi upstream (see sta 07179794).

AVERAGE DISCHARGE.--16 years, 78.1 cu ft per sec, 56,580 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,390 cu ft per sec June 13, 1971; no flow part of each day June 15, 1973, Sept. 30, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,290 cu ft per sec Mar. 29, gage height, 13.20 ft; maximum gage height, 15.02 ft Mar. 19, backwater from South Cottonwood River; no flow part of Sept. 30.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.4 | 9.5 | 4.9 | 1.6 | 2.2 | .85 | 826 | 320 | 10 | 33 | 10 | 7.4 |
| 2 | 9.4 | 5.9 | 3.2 | 1.8 | 2.4 | .93 | 417 | 931 | 11 | 23 | 8.9 | 7.5 |
| 3 | 9.4 | 6.5 | 3.5 | 1.9 | 2.4 | .90 | 56 | 1120 | 11 | 13 | 9.1 | 7.5 |
| 4 | 9.4 | 6.8 | 3.4 | 2.5 | 2.4 | 1.9 | 96 | 1120 | 11 | 13 | 9.0 | 7.6 |
| 5 | 9.4 | 6.4 | 4.6 | 2.9 | 2.5 | 1.8 | 96 | 1110 | 11 | 13 | 8.2 | 7.5 |
| 6 | 9.4 | 6.5 | 3.7 | 2.8 | 6.0 | 1.4 | 95 | 1110 | 11 | 13 | 8.6 | 6.3 |
| 7 | 9.4 | 6.6 | 3.6 | 2.9 | 3.7 | 1.7 | 95 | 1100 | 11 | 12 | 9.2 | 6.5 |
| 8 | 9.4 | 5.9 | 3.8 | 3.3 | 3.7 | 3.6 | 97 | 731 | 12 | 13 | 9.0 | 6.7 |
| 9 | 9.4 | 7.9 | 3.7 | 3.6 | 3.4 | 2.7 | 323 | 206 | 12 | 13 | 9.2 | 6.8 |
| 10 | 10 | 7.2 | 3.1 | 3.2 | 3.6 | 2.8 | 616 | 13 | 11 | 13 | 9.4 | 7.3 |
| 11 | 10 | 6.2 | 3.6 | 2.7 | 3.6 | 2.7 | 431 | 12 | 11 | 12 | 9.4 | 8.4 |
| 12 | 9.4 | 5.9 | 2.6 | 2.7 | 3.6 | 2.7 | 98 | 13 | 12 | 11 | 9.3 | 8.3 |
| 13 | 9.4 | 5.9 | 2.6 | 2.8 | 2.1 | 2.7 | 361 | 13 | 12 | 12 | 8.9 | 8.0 |
| 14 | 9.4 | 5.7 | 2.4 | 3.1 | 1.1 | 2.9 | 488 | 13 | 12 | 13 | 8.0 | 8.0 |
| 15 | 8.9 | 6.3 | 2.1 | 3.0 | .47 | 3.2 | 458 | 14 | 59 | 12 | 8.5 | 7.5 |
| 16 | 8.9 | 6.1 | 2.0 | 2.7 | 1.6 | 3.3 | 457 | 13 | 95 | 12 | 8.5 | 7.3 |
| 17 | 8.9 | 5.6 | 2.0 | 2.7 | .54 | 3.4 | 447 | 14 | 95 | 12 | 8.4 | 7.4 |
| 18 | 8.4 | 5.7 | 1.4 | 2.7 | 1.3 | 12 | 448 | 13 | 94 | 13 | 8.6 | 6.9 |
| 19 | 9.4 | 6.8 | 1.2 | 2.9 | 1.6 | 5.5 | 444 | 13 | 94 | 12 | 8.9 | 7.0 |
| 20 | 9.4 | 7.1 | .65 | 2.9 | .43 | 4.2 | 353 | 13 | 94 | 12 | 8.8 | 7.4 |
| 21 | 11 | 7.5 | .51 | 2.9 | .35 | 3.2 | 285 | 12 | 94 | 12 | 8.8 | 7.6 |
| 22 | 10 | 7.5 | .70 | 3.1 | .55 | 238 | 286 | 13 | 95 | 11 | 8.9 | 7.1 |
| 23 | 10 | 8.2 | 1.0 | 3.1 | 1.3 | 742 | 278 | 11 | 95 | 11 | 8.7 | 7.8 |
| 24 | 8.9 | 7.8 | .98 | 2.7 | 1.6 | 960 | 268 | 12 | 95 | 12 | 8.3 | 7.4 |
| 25 | 8.9 | 7.9 | 1.0 | 2.9 | .92 | 937 | 256 | 11 | 365 | 11 | 7.8 | 7.5 |
| 26 | 8.9 | 8.8 | 1.0 | 2.9 | .88 | 1220 | 221 | 11 | 597 | 11 | 8.1 | 7.0 |
| 27 | 9.4 | 8.8 | 1.0 | 2.6 | 1.8 | 1670 | 203 | 11 | 595 | 11 | 6.5 | 6.6 |
| 28 | 10 | 7.5 | 1.1 | 2.4 | 2.1 | 1640 | 193 | 10 | 293 | 11 | 7.1 | 3.9 |
| 29 | 12 | 6.1 | 1.4 | 2.3 | 1.1 | 2020 | 103 | 9.5 | 64 | 11 | 7.2 | .03 |
| 30 | 12 | 6.2 | 1.7 | 1.9 | --- | 1660 | 13 | 9.7 | 33 | 13 | 7.3 | 1.6 |
| 31 | 11 | --- | 1.6 | 1.9 | --- | 1060 | --- | 10 | --- | 11 | 7.2 | --- |
| TOTAL | 298.8 | 206.8 | 70.04 | 83.4 | 59.24 | 12211.38 | 8808 | 8012.2 | 3015 | 405 | 263.8 | 203.83 |
| MEAN | 9.64 | 6.89 | 2.26 | 2.69 | 2.04 | 394 | 294 | 258 | 101 | 13.1 | 8.51 | 6.79 |
| MAX | 12 | 9.5 | 4.9 | 3.6 | 6.0 | 2020 | 826 | 1120 | 597 | 33 | 10 | 8.4 |
| MIN | 8.4 | 5.6 | .51 | 1.6 | .35 | .85 | 13 | 9.5 | 10 | 11 | 6.5 | .03 |
| AC-FT | 593 | 410 | 139 | 165 | 118 | 24220 | 17470 | 15890 | 5980 | 803 | 523 | 404 |

CAL YR 1983 TOTAL 33034.80 MEAN 90.5 MAX 3090 MIN .41 AC-FT 65520
WTR YR 1984 TOTAL 33637.49 MEAN 91.9 MAX 2020 MIN .03 AC-FT 66720

## 07180400 COTTONWOOD RIVER NEAR FLORENCE, KS

LOCATION.--Lat 38 deg 14 min 10 sec, long 96 deg 52 min 37 sec, in NW1/4 SW1/4 sec.10, T.21 S., R.5 E., Marion County, Hydrologic Unit 11070202, on left bank at downstream side of county highway bridge 0.4 mi upstream from Martin Creek, 2.5 mi east of Florence, 3.3 mi downstream from Doyle Creek and at mile 102.4.

DRAINAGE AREA.--754 sq mi.

PERIOD OF RECORD.--June 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,231.49 ft National Geodetic Vertical Datum of 1929. Since Aug. 10, 1965, auxiliary water-stage recorder 2.8 mi downstream at datum 1,219.49 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flow moderately regulated since 1968 by Marion Lake, 24 mi upstream (see sta 07179794) Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--23 years, 310 cu ft per sec, 224,600 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,000 cu ft per sec June 17, 1975, gage height, 28.03 ft; minimum, 5.5 cu ft per sec Oct. 11, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1872, 32.5 ft July 11, 1951, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,600 cu ft per sec Mar. 19, gage height, 23.69 ft; minimum, 28 cu ft per sec Sept. 2, 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 38 | 47 | 122 | 77 | 130 | 63 | 1290 | 719 | 155 | 118 | 48 | 31 |
| 2 | 38 | 54 | 103 | 78 | 107 | 63 | 1220 | 1090 | 146 | 104 | 45 | 34 |
| 3 | 37 | 53 | 96 | 78 | 96 | 64 | 1940 | 1810 | 139 | 89 | 41 | 37 |
| 4 | 37 | 46 | 94 | 78 | 90 | 79 | 916 | 1430 | 139 | 82 | 42 | 36 |
| 5 | 35 | 40 | 96 | 77 | 83 | 91 | 558 | 1310 | 139 | 81 | 41 | 36 |
| 6 | 35 | 39 | 92 | 78 | 68 | 93 | 471 | 1300 | 135 | 80 | 41 | 36 |
| 7 | 35 | 41 | 87 | 94 | 71 | 85 | 854 | 1340 | 129 | 77 | 42 | 30 |
| 8 | 38 | 45 | 83 | 240 | 67 | 78 | 4660 | 1170 | 130 | 77 | 42 | 31 |
| 9 | 41 | 55 | 82 | 339 | 67 | 74 | 2810 | 702 | 852 | 72 | 42 | 36 |
| 10 | 41 | 226 | 79 | 268 | 70 | 73 | 1490 | 287 | 431 | 67 | 40 | 34 |
| 11 | 51 | 283 | 78 | 161 | 74 | 71 | 1750 | 268 | 198 | 67 | 39 | 35 |
| 12 | 56 | 117 | 74 | 117 | 76 | 72 | 1490 | 258 | 157 | 64 | 37 | 32 |
| 13 | 48 | 75 | 72 | 91 | 74 | 73 | 860 | 247 | 142 | 64 | 39 | 32 |
| 14 | 45 | 61 | 70 | 82 | 70 | 74 | 979 | 228 | 179 | 63 | 39 | 33 |
| 15 | 42 | 52 | 68 | 74 | 65 | 76 | 791 | 224 | 187 | 61 | 37 | 33 |
| 16 | 44 | 56 | 64 | 76 | 65 | 91 | 774 | 215 | 228 | 62 | 37 | 32 |
| 17 | 42 | 53 | 60 | 72 | 69 | 820 | 763 | 208 | 202 | 67 | 36 | 34 |
| 18 | 44 | 53 | 58 | 69 | 76 | 2760 | 734 | 197 | 184 | 63 | 34 | 41 |
| 19 | 51 | 55 | 60 | 69 | 72 | 9660 | 697 | 191 | 191 | 58 | 33 | 38 |
| 20 | 63 | 53 | 68 | 65 | 67 | 4350 | 862 | 233 | 187 | 56 | 33 | 37 |
| 21 | 65 | 54 | 70 | 64 | 65 | 4290 | 1320 | 219 | 180 | 55 | 34 | 36 |
| 22 | 126 | 55 | 70 | 67 | 61 | 3630 | 898 | 199 | 179 | 53 | 37 | 36 |
| 23 | 111 | 56 | 70 | 70 | 58 | 1380 | 734 | 196 | 547 | 51 | 38 | 35 |
| 24 | 70 | 57 | 70 | 72 | 60 | 3950 | 646 | 190 | 747 | 49 | 36 | 35 |
| 25 | 50 | 56 | 66 | 73 | 58 | 3090 | 601 | 178 | 280 | 48 | 37 | 34 |
| 26 | 44 | 63 | 77 | 95 | 61 | 1580 | 523 | 170 | 619 | 47 | 36 | 33 |
| 27 | 44 | 955 | 78 | 196 | 65 | 2260 | 1970 | 168 | 624 | 46 | 36 | 35 |
| 28 | 42 | 1200 | 81 | 288 | 65 | 2150 | 1020 | 205 | 563 | 46 | 34 | 37 |
| 29 | 42 | 298 | 77 | 218 | 64 | 3080 | 331 | 196 | 195 | 46 | 34 | 36 |
| 30 | 44 | 160 | 73 | 215 | --- | 2570 | 3350 | 169 | 137 | 45 | 33 | 32 |
| 31 | 45 | --- | 73 | 187 | --- | 1420 | --- | 164 | --- | 49 | 31 | --- |
| TOTAL | 1544 | 4456 | 2411 | 3828 | 2114 | 48230 | 37602 | 15461 | 8321 | 2007 | 1174 | 1037 |
| MEAN | 49.8 | 149 | 77.8 | 123 | 72.9 | 1556 | 1253 | 499 | 277 | 64.7 | 37.9 | 34.6 |
| MAX | 126 | 1200 | 122 | 339 | 130 | 9660 | 4660 | 1810 | 852 | 118 | 48 | 41 |
| MIN | 35 | 39 | 58 | 64 | 58 | 63 | 471 | 164 | 129 | 45 | 31 | 30 |
| AC-FT | 3060 | 8840 | 4780 | 7590 | 4190 | 95660 | 74580 | 30710 | 16500 | 3980 | 2330 | 2060 |

CAL YR 1983 TOTAL 108194 MEAN 296 MAX 6690 MIN 31 AC-FT 214600
WTR YR 1984 TOTAL 128205 MEAN 350 MAX 9660 MIN 30 AC-FT 254300

## 07180500 CEDAR CREEK NEAR CEDAR POINT, KS

LOCATION.--Lat 38 deg 11 min 55 sec, long 96 deg 49 min 22 sec, in NE1/4 SE1/4 NE1/4 sec.25, T.21 S., R.5 E., Chase County, Hydrologic Unit 11070202, on upstream end of right abutment of highway bridge, 4.0 mi south of Cedar Point, and at mile 9.4.

DRAINAGE AREA.--110 sq mi.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1211: 1944(M). WSP 1341: 1940-41, 1942(M), 1943, 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 1,262.50 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Sept. 28, 1944, nonrecording gage at downstream side of present bridge at same datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--46 years, 53.5 cu ft per sec, 38,760 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,400 cu ft per sec June 29, 1951, gage height, 23.70 ft, from rating curve extended above 7,500 cu ft per sec on basis of contracted-opening and flow-over-road measurement of peak discharge; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1929 reached a stage of 24.63 ft from floodmarks on house on left bank where flood in 1951 reached a stage of 25.7 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,600 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 17 | 0200 | 4,500 | 14.19 | Mar. 18 | 2100 | *6,600 | 16.57 |

Minimum discharge, 0.48 cu ft per sec Sept. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.4 | 5.4 | 16 | 5.5 | 16 | 15 | 107 | 83 | 33 | 14 | 5.0 | 2.6 |
| 2 | 4.1 | 5.8 | 15 | 6.5 | 15 | 15 | 183 | 82 | 31 | 14 | 5.2 | 2.8 |
| 3 | 4.6 | 12 | 16 | 8.0 | 13 | 15 | 191 | 159 | 31 | 13 | 5.0 | 3.3 |
| 4 | 4.9 | 12 | 18 | 10 | 12 | 139 | 124 | 90 | 31 | 13 | 4.8 | 3.3 |
| 5 | 5.2 | 11 | 18 | 12 | 11 | 64 | 103 | 79 | 30 | 13 | 5.4 | 2.9 |
| 6 | 5.2 | 11 | 18 | 29 | 11 | 37 | 94 | 80 | 29 | 13 | 5.2 | 2.9 |
| 7 | 5.4 | 11 | 17 | 44 | 10 | 31 | 774 | 79 | 27 | 12 | 4.3 | 1.3 |
| 8 | 6.3 | 12 | 16 | 43 | 9.9 | 27 | 1370 | 68 | 28 | 11 | 4.6 | .49 |
| 9 | 7.5 | 16 | 15 | 38 | 11 | 24 | 245 | 66 | 30 | 10 | 5.3 | .80 |
| 10 | 7.5 | 26 | 15 | 28 | 12 | 23 | 291 | 66 | 29 | 8.4 | 5.2 | 2.2 |
| 11 | 8.9 | 27 | 14 | 22 | 12 | 22 | 214 | 64 | 26 | 8.6 | 5.1 | 5.3 |
| 12 | 11 | 20 | 14 | 17 | 11 | 25 | 276 | 64 | 24 | 8.1 | 4.9 | 4.3 |
| 13 | 7.2 | 18 | 13 | 15 | 11 | 25 | 131 | 64 | 24 | 8.7 | 4.5 | 2.9 |
| 14 | 5.7 | 17 | 13 | 13 | 10 | 24 | 108 | 62 | 23 | 8.0 | 4.4 | 2.7 |
| 15 | 5.2 | 17 | 12 | 12 | 10 | 23 | 101 | 61 | 22 | 7.9 | 4.3 | 3.3 |
| 16 | 4.6 | 17 | 11 | 11 | 14 | 300 | 95 | 60 | 20 | 8.4 | 3.9 | 3.4 |
| 17 | 4.9 | 18 | 10 | 11 | 14 | 1380 | 89 | 58 | 19 | 16 | 3.6 | 4.4 |
| 18 | 5.7 | 16 | 8.0 | 11 | 12 | 2030 | 84 | 52 | 19 | 13 | 2.8 | 6.1 |
| 19 | 14 | 16 | 6.0 | 11 | 12 | 968 | 80 | 53 | 18 | 9.1 | 2.9 | 5.2 |
| 20 | 15 | 17 | 5.0 | 11 | 12 | 797 | 241 | 94 | 19 | 8.0 | 3.7 | 4.3 |
| 21 | 10 | 16 | 5.0 | 11 | 11 | 668 | 429 | 58 | 19 | 7.4 | 3.3 | 4.0 |
| 22 | 8.5 | 16 | 5.0 | 12 | 12 | 155 | 140 | 51 | 18 | 7.1 | 4.1 | 3.9 |
| 23 | 6.9 | 17 | 5.0 | 13 | 12 | 125 | 115 | 49 | 38 | 6.7 | 5.0 | 3.6 |
| 24 | 6.0 | 19 | 5.0 | 15 | 12 | 440 | 96 | 44 | 40 | 6.6 | 3.9 | 3.4 |
| 25 | 5.4 | 18 | 5.0 | 20 | 11 | 153 | 90 | 42 | 23 | 6.2 | 3.3 | 3.3 |
| 26 | 4.9 | 18 | 5.0 | 109 | 14 | 179 | 87 | 40 | 19 | 6.2 | 3.0 | 3.6 |
| 27 | 4.4 | 56 | 6.0 | 74 | 17 | 174 | 88 | 41 | 18 | 5.5 | 3.5 | 4.5 |
| 28 | 3.6 | 62 | 6.0 | 32 | 18 | 388 | 78 | 45 | 16 | 5.5 | 3.0 | 5.7 |
| 29 | 4.4 | 27 | 5.0 | 26 | 15 | 308 | 103 | 40 | 16 | 5.2 | 2.4 | 5.6 |
| 30 | 4.6 | 18 | 5.0 | 23 | --- | 130 | 116 | 37 | 15 | 5.8 | 2.5 | 4.9 |
| 31 | 4.9 | --- | 5.0 | 19 | --- | 112 | --- | 36 | --- | 5.9 | 3.0 | --- |
| TOTAL | 200.7 | 572.2 | 327.0 | 712.0 | 360.9 | 8816 | 6243 | 1967 | 735 | 285.3 | 127.1 | 106.99 |
| MEAN | 6.47 | 19.1 | 10.5 | 23.0 | 12.4 | 284 | 208 | 63.5 | 24.5 | 9.20 | 4.10 | 3.57 |
| MAX | 15 | 62 | 18 | 109 | 18 | 2030 | 1370 | 159 | 40 | 16 | 5.4 | 6.1 |
| MIN | 3.6 | 5.4 | 5.0 | 5.5 | 9.9 | 15 | 78 | 36 | 15 | 5.2 | 2.4 | .49 |
| AC-FT | 398 | 1130 | 649 | 1410 | 716 | 17490 | 12380 | 3900 | 1460 | 566 | 252 | 212 |

CAL YR 1983 TOTAL 16897.20 MEAN 66.3 MAX 2870 MIN 3.5 AC-FT 33520
WTR YR 1984 TOTAL 20453.19 MEAN 55.9 MAX 2030 MIN .49 AC-FT 40570

## 07182250 COTTONWOOD RIVER NEAR PLYMOUTH, KS

LOCATION.--Lat 38 deg 23 min 51 sec, long 96 deg 21 min 21 sec, in NE1/4 NE1/4 SE1/4 sec.13, T.19 S., R.9 E., Chase County, Hydrologic Unit 11070203, at downstream side of county bridge, 0.8 mi downstream from Buckeye Creek, 1.5 mi southwest of Plymouth, and at mile 39.2.

DRAINAGE AREA.--1,740 sq mi.

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,109.06 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Flow partially regulated by Marion Lake 87.3 mi upstream since 1968 (see sta 07179794). Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--21 years, 859 cu ft per sec, 622,300 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,500 cu ft per sec June 5, 1965, gage height, 35.70 ft; minimum, 8.7 cu ft per sec Oct. 21, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1903, 37.8 ft July 11, 1951, from information by local residents, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,900 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Mar. 17 | 0600 | 5,940 | 21.06 | Apr. 12 | 1200 | 6,940 | 23.22 |
| Mar. 19 | 0700 | *15,500 | 33.11 | Apr. 21 | 0900 | 6,920 | 23.16 |
| Mar. 26 | 1300 | 6,420 | 22.11 | Apr. 30 | 1000 | 5,930 | 21.05 |
| Mar. 29 | 2300 | 5,130 | 19.23 | June 9 | 1900 | 5,570 | 20.25 |
| Apr. 8 | 2400 | 11,400 | 31.40 | | | | |

Minimum discharge, 50 cu ft per sec Oct. 4-10, Sept. 11, 12, 16, 17.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 55 | 68 | 403 | 170 | 635 | 249 | 2950 | 4800 | 592 | 422 | 94 | 55 |
| 2 | 53 | 70 | 292 | 175 | 485 | 246 | 2920 | 2740 | 546 | 361 | 94 | 56 |
| 3 | 52 | 69 | 259 | 180 | 355 | 243 | 4240 | 3960 | 516 | 331 | 94 | 55 |
| 4 | 50 | 70 | 257 | 185 | 292 | 1170 | 4020 | 3570 | 504 | 306 | 90 | 55 |
| 5 | 50 | 76 | 255 | 190 | 250 | 828 | 2590 | 2870 | 492 | 278 | 86 | 56 |
| 6 | 50 | 75 | 241 | 250 | 230 | 677 | 1880 | 2650 | 472 | 277 | 84 | 56 |
| 7 | 50 | 74 | 229 | 320 | 220 | 536 | 2380 | 2650 | 466 | 263 | 85 | 53 |
| 8 | 50 | 69 | 221 | 470 | 209 | 459 | 9890 | 2520 | 1960 | 245 | 86 | 53 |
| 9 | 50 | 73 | 211 | 749 | 212 | 406 | 10800 | 2270 | 3960 | 225 | 81 | 53 |
| 10 | 50 | 80 | 203 | 952 | 219 | 385 | 8710 | 1750 | 3010 | 204 | 79 | 51 |
| 11 | 64 | 100 | 202 | 858 | 222 | 365 | 5040 | 1270 | 1450 | 194 | 77 | 50 |
| 12 | 67 | 420 | 197 | 607 | 219 | 366 | 6130 | 1140 | 885 | 182 | 77 | 51 |
| 13 | 69 | 269 | 194 | 400 | 211 | 392 | 4160 | 1080 | 692 | 175 | 74 | 51 |
| 14 | 76 | 168 | 188 | 300 | 202 | 383 | 2740 | 1010 | 597 | 167 | 73 | 52 |
| 15 | 76 | 127 | 180 | 260 | 199 | 369 | 2400 | 945 | 547 | 159 | 71 | 52 |
| 16 | 72 | 110 | 170 | 230 | 336 | 416 | 2200 | 1020 | 564 | 154 | 70 | 50 |
| 17 | 67 | 99 | 160 | 200 | 269 | 4920 | 2040 | 942 | 521 | 152 | 69 | 51 |
| 18 | 64 | 98 | 155 | 180 | 266 | 6240 | 1910 | 854 | 515 | 159 | 66 | 53 |
| 19 | 78 | 96 | 150 | 170 | 268 | 14400 | 1810 | 1040 | 482 | 162 | 65 | 55 |
| 20 | 72 | 93 | 150 | 170 | 244 | 12300 | 1940 | 1640 | 473 | 148 | 64 | 60 |
| 21 | 83 | 94 | 150 | 175 | 228 | 13300 | 6050 | 1060 | 474 | 135 | 65 | 61 |
| 22 | 98 | 99 | 150 | 180 | 219 | 11500 | 4710 | 948 | 469 | 127 | 64 | 58 |
| 23 | 97 | 101 | 150 | 190 | 212 | 8030 | 2950 | 863 | 2970 | 123 | 64 | 56 |
| 24 | 147 | 102 | 150 | 200 | 203 | 4910 | 2280 | 796 | 1560 | 117 | 64 | 55 |
| 25 | 131 | 104 | 150 | 220 | 197 | 5780 | 1970 | 743 | 1500 | 114 | 65 | 54 |
| 26 | 99 | 105 | 155 | 450 | 205 | 6240 | 1810 | 696 | 813 | 110 | 65 | 52 |
| 27 | 83 | 613 | 160 | 700 | 237 | 4830 | 1760 | 819 | 1030 | 107 | 63 | 53 |
| 28 | 73 | 2330 | 165 | 850 | 258 | 4130 | 2840 | 904 | 1050 | 103 | 62 | 54 |
| 29 | 68 | 1940 | 170 | 900 | 249 | 4860 | 3500 | 767 | 984 | 101 | 61 | 54 |
| 30 | 65 | 723 | 165 | 869 | --- | 4900 | 5470 | 717 | 615 | 98 | 59 | 55 |
| 31 | 66 | --- | 165 | 731 | --- | 4110 | --- | 644 | --- | 96 | 56 | --- |
| TOTAL | 2228 | 8415 | 6047 | 12481 | 7551 | 117940 | 114090 | 49678 | 30709 | 5795 | 2267 | 1620 |
| MEAN | 71.9 | 281 | 195 | 403 | 260 | 3805 | 3803 | 1603 | 1024 | 187 | 73.1 | 54.0 |
| MAX | 147 | 2330 | 403 | 952 | 635 | 14400 | 10800 | 4800 | 3960 | 422 | 94 | 61 |
| MIN | 50 | 68 | 150 | 170 | 197 | 243 | 1760 | 644 | 466 | 96 | 56 | 50 |
| AC-FT | 4420 | 16690 | 11990 | 24760 | 14980 | 233900 | 226300 | 98540 | 60910 | 11490 | 4500 | 3210 |

CAL YR 1983 TOTAL 311543 MEAN 854 MAX 11900 MIN 50 AC-FT 617900
WTR YR 1984 TOTAL 358821 MEAN 980 MAX 14400 MIN 50 AC-FT 711700

## 07182450 JOHN REDMOND RESERVOIR NEAR BURLINGTON, KS

LOCATION.--Lat 38 deg 14 min 15 sec, long 95 deg 46 min 05 sec, in SE1/4 SE1/4 NW1/4 sec.9, T.21 S., R.15 E., Coffey County, Hydrologic Unit 11070204, on the dam on Neosho River, 3,300 ft southwest of spillway, 3.0 mi north of Burlington, and at mile 343.7.

DRAINAGE AREA.--3,015 sq mi.

PERIOD OF RECORD.--August 1963 to current year.

REVISED RECORDS.--Capacity table WDR KS-82: 1981.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. The spillway is a gate-controlled, concrete chute type structure. Filling began Sept. 7, 1963; regulated storage began Sept. 1, 1964. Maximum pool, 858,900 acre-ft at elevation 1,074.5 ft; top of flood control pool, 630,200 acre-ft at elevation 1,068.0 ft; and top of conservation pool, 71,280 acre-ft at elevation 1,039.0 ft. Reservoir is designed for flood control, water quality control, recreation, fish and wildlife, and future water supply. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,066.81 ft Oct. 16, 1973, contents, 607,500 acre-ft; minimum since conservation pool first filled, 1,032.68 ft Sept. 23, 1984, contents, 25,240 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,052.72 ft Apr. 14, contents, 256,100 acre-ft; minimum, 1,032.68 ft Sept. 23, contents, 25,240 acre-ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers, computed in 1977)

| | | | |
|---|---|---|---|
| 1,030 | 13,580 | 1,050 | 209,600 |
| 1,035 | 39,440 | 1,055 | 299,300 |
| 1,040 | 80,720 | 1,060 | 408,500 |
| 1,045 | 137,100 | | |

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1034.13 | 1035.26 | 1037.65 | 1036.45 | 1037.55 | 1034.41 | 1050.14 | 1046.63 | 1039.72 | 1039.24 | 1033.00 | 1032.99 |
| 2 | 1034.09 | 1035.41 | 1037.45 | 1036.47 | 1037.35 | 1034.24 | 1049.56 | 1046.17 | 1039.67 | 1039.06 | 1033.00 | 1033.00 |
| 3 | 1034.14 | 1035.50 | 1037.21 | 1036.51 | 1037.28 | 1034.50 | 1049.26 | 1045.81 | 1039.58 | 1039.06 | 1032.98 | 1032.98 |
| 4 | 1034.13 | 1035.53 | 1037.09 | 1036.55 | 1037.43 | 1034.64 | 1048.77 | 1045.64 | 1039.49 | 1039.10 | 1032.98 | 1032.99 |
| 5 | 1034.14 | 1035.54 | 1036.97 | 1036.60 | 1037.55 | 1034.94 | 1048.07 | 1045.17 | 1039.34 | 1039.14 | 1032.97 | 1032.96 |
| 6 | 1034.12 | 1035.57 | 1036.87 | 1036.68 | 1037.62 | 1034.78 | 1047.12 | 1044.68 | 1039.21 | 1039.17 | 1033.02 | 1032.89 |
| 7 | 1034.12 | 1035.59 | 1036.87 | 1036.86 | 1037.60 | 1034.55 | 1046.32 | 1043.98 | 1039.02 | 1039.16 | 1033.06 | 1032.82 |
| 8 | 1034.12 | 1035.58 | 1036.96 | 1037.10 | 1037.45 | 1034.13 | 1047.31 | 1043.09 | 1039.80 | 1039.19 | 1033.05 | 1032.88 |
| 9 | 1034.13 | 1035.75 | 1037.04 | 1037.29 | 1037.36 | 1034.13 | 1048.75 | 1042.05 | 1041.69 | 1039.20 | 1033.05 | 1032.87 |
| 10 | 1034.11 | 1035.78 | 1037.20 | 1037.35 | 1037.27 | 1034.24 | 1050.30 | 1040.93 | 1043.96 | 1039.24 | 1033.04 | 1032.90 |
| 11 | 1034.30 | 1035.82 | 1037.31 | 1037.42 | 1037.23 | 1034.23 | 1051.37 | 1040.22 | 1045.44 | 1039.20 | 1033.05 | 1032.84 |
| 12 | 1034.28 | 1035.89 | 1037.34 | 1037.52 | 1037.18 | 1034.30 | 1052.24 | 1040.08 | 1044.89 | 1039.16 | 1033.05 | 1032.83 |
| 13 | 1034.28 | 1035.98 | 1037.29 | 1037.49 | 1037.11 | 1034.31 | 1052.66 | 1039.90 | 1043.74 | 1039.13 | 1033.01 | 1032.82 |
| 14 | 1034.22 | 1036.14 | 1037.20 | 1037.44 | 1037.01 | 1034.26 | 1052.60 | 1039.55 | 1042.85 | 1039.11 | 1033.02 | 1032.82 |
| 15 | 1034.29 | 1036.16 | 1037.06 | 1037.40 | 1037.05 | 1034.26 | 1052.36 | 1039.09 | 1041.94 | 1039.09 | 1033.02 | 1032.79 |
| 16 | 1034.33 | 1036.20 | 1037.00 | 1037.41 | 1037.12 | 1034.34 | 1051.78 | 1038.94 | 1040.74 | 1039.07 | 1033.01 | 1032.76 |
| 17 | 1034.33 | 1036.26 | 1037.00 | 1037.43 | 1037.15 | 1035.44 | 1051.08 | 1039.00 | 1039.59 | 1039.07 | 1033.01 | 1032.77 |
| 18 | 1034.34 | 1036.26 | 1037.00 | 1037.42 | 1037.37 | 1038.00 | 1050.27 | 1039.10 | 1038.84 | 1039.02 | 1032.98 | 1032.77 |
| 19 | 1034.55 | 1036.37 | 1037.06 | 1037.18 | 1037.39 | 1042.27 | 1049.37 | 1039.30 | 1038.76 | 1038.57 | 1032.96 | 1032.78 |
| 20 | 1034.68 | 1036.35 | 1037.10 | 1037.02 | 1037.46 | 1045.52 | 1048.76 | 1039.54 | 1038.88 | 1037.70 | 1032.95 | 1032.78 |
| 21 | 1034.80 | 1036.36 | 1037.10 | 1036.96 | 1037.51 | 1047.83 | 1049.74 | 1040.11 | 1038.96 | 1036.80 | 1033.02 | 1032.75 |
| 22 | 1034.85 | 1036.46 | 1037.10 | 1036.86 | 1037.50 | 1049.21 | 1050.75 | 1040.15 | 1039.23 | 1035.93 | 1033.12 | 1032.78 |
| 23 | 1034.86 | 1036.50 | 1037.09 | 1036.87 | 1037.46 | 1050.33 | 1050.85 | 1040.08 | 1039.89 | 1034.91 | 1033.09 | 1032.74 |
| 24 | 1034.91 | 1036.51 | 1037.06 | 1036.83 | 1037.22 | 1051.36 | 1050.16 | 1039.94 | 1040.99 | 1034.01 | 1033.06 | 1032.89 |
| 25 | 1034.91 | 1036.45 | 1037.04 | 1036.83 | 1036.63 | 1051.58 | 1049.18 | 1039.86 | 1041.08 | 1033.58 | 1033.06 | 1032.75 |
| 26 | 1034.95 | 1036.49 | 1037.01 | 1036.94 | 1036.39 | 1051.74 | 1048.23 | 1039.50 | 1040.75 | 1033.30 | 1033.05 | 1032.70 |
| 27 | 1034.99 | 1036.90 | 1037.00 | 1037.07 | 1036.04 | 1051.95 | 1047.20 | 1039.72 | 1040.41 | 1033.19 | 1033.05 | 1032.76 |
| 28 | 1035.03 | 1037.79 | 1037.00 | 1037.28 | 1035.53 | 1051.83 | 1046.26 | 1039.99 | 1040.03 | 1033.12 | 1033.06 | 1032.77 |
| 29 | 1035.00 | 1038.25 | 1037.00 | 1037.57 | 1034.91 | 1051.51 | 1045.80 | 1040.13 | 1039.76 | 1033.06 | 1033.08 | 1032.77 |
| 30 | 1035.10 | 1038.09 | 1036.65 | 1037.63 | --- | 1051.17 | 1046.22 | 1040.00 | 1039.53 | 1033.04 | 1033.05 | 1032.76 |
| 31 | 1035.10 | --- | 1036.41 | 1037.65 | --- | 1050.75 | --- | 1039.85 | --- | 1033.02 | 1033.03 | --- |
| MEAN | 1034.49 | 1036.22 | 1037.07 | 1037.10 | 1037.09 | 1040.99 | 1049.42 | 1041.23 | 1040.59 | 1037.25 | 1033.03 | 1032.83 |
| MAX | 1035.10 | 1038.25 | 1037.65 | 1037.65 | 1037.62 | 1051.95 | 1052.66 | 1046.63 | 1045.44 | 1039.24 | 1033.12 | 1033.00 |
| MIN | 1034.09 | 1035.26 | 1036.41 | 1036.45 | 1034.91 | 1034.13 | 1045.80 | 1038.94 | 1039.76 | 1033.02 | 1032.95 | 1032.70 |
| (+) | 40,130 | 63,190 | 49,540 | 59,500 | 38,810 | 221,900 | 153,200 | 79,290 | 76,250 | 27,150 | 27,210 | 25,680 |
| (#) | +6,330 | +23,060 | -13,650 | +9,960 | -20,690 | +183,090 | -68,700 | -73,910 | -3,040 | -49,100 | +60 | -1,530 |

CAL YR 1983 ...................... (#) -35,790
WTR YR 1984 ...................... (#) -8,120

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

## 07182510 NEOSHO RIVER AT BURLINGTON, KS

LOCATION.--Lat 38 deg 11 min 40 sec, long 95 deg 44 min 10 sec, in SE1/4 NW1/4 sec.26, T.21 S., R.15 E., Coffey County, Hydrologic Unit 11070204, at downstream side of highway bridge at Burlington, 0.3 mi upstream from Rock Creek, and at mile 338.4. Records include flow of Rock Creek.

DRAINAGE AREA.--3,042 sq mi, includes that of Rock Creek.

PERIOD OF RECORD.--June 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 983.56 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow completely regulated since 1963 by John Redmond Reservoir 5.3 mi upstream (see sta 07182450). Diversion of water for the Wolf Creek Nuclear Power Plant began Oct. 8, 1980.

AVERAGE DISCHARGE.--23 years (water years 1962-84), 1,549 cu ft per sec, 1,122,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,200 cu ft per sec Sept. 13, 1961, gage height, 31.53 ft; no flow part of Nov. 28, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,500 cu ft per sec Apr. 16, gage height, 20.56 ft; minimum, 13 cu ft per sec Feb. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 37 | 124 | 3490 | 123 | 1190 | 2230 | 10500 | 8020 | 1390 | 2400 | 104 | 39 |
| 2 | 37 | 181 | 2360 | 121 | 1550 | 1060 | 10400 | 10100 | 1390 | 1640 | 88 | 40 |
| 3 | 36 | 54 | 1470 | 122 | 1020 | 457 | 10700 | 9820 | 1380 | 655 | 81 | 40 |
| 4 | 24 | 52 | 1430 | 123 | 34 | 647 | 10700 | 8310 | 1370 | 374 | 76 | 39 |
| 5 | 23 | 45 | 1200 | 124 | 21 | 1480 | 11000 | 9010 | 1360 | 374 | 71 | 38 |
| 6 | 23 | 43 | 835 | 131 | 17 | 2310 | 10700 | 8850 | 1350 | 374 | 78 | 34 |
| 7 | 23 | 43 | 596 | 134 | 569 | 2200 | 9670 | 9130 | 1340 | 373 | 123 | 34 |
| 8 | 25 | 42 | 39 | 134 | 1040 | 1810 | 5900 | 9890 | 1820 | 374 | 105 | 37 |
| 9 | 24 | 51 | 26 | 357 | 1000 | 855 | 5740 | 9770 | 1360 | 374 | 63 | 37 |
| 10 | 24 | 97 | 25 | 796 | 805 | 464 | 5870 | 9200 | 101 | 372 | 53 | 36 |
| 11 | 41 | 64 | 26 | 795 | 605 | 473 | 7210 | 6350 | 1490 | 374 | 44 | 28 |
| 12 | 26 | 53 | 24 | 792 | 601 | 519 | 7480 | 2440 | 5920 | 369 | 42 | 26 |
| 13 | 23 | 51 | 641 | 796 | 598 | 546 | 6180 | 2420 | 8560 | 286 | 45 | 30 |
| 14 | 23 | 51 | 1300 | 796 | 590 | 644 | 6740 | 2840 | 8070 | 181 | 52 | 42 |
| 15 | 25 | 51 | 1480 | 796 | 403 | 755 | 6480 | 3210 | 6790 | 179 | 57 | 42 |
| 16 | 28 | 51 | 1030 | 794 | 251 | 708 | 8310 | 2000 | 7190 | 179 | 57 | 41 |
| 17 | 25 | 54 | 615 | 787 | 250 | 1170 | 9440 | 796 | 6860 | 181 | 54 | 36 |
| 18 | 27 | 56 | 615 | 775 | 255 | 1790 | 9770 | 629 | 5110 | 181 | 48 | 21 |
| 19 | 40 | 57 | 615 | 769 | 252 | 992 | 9880 | 373 | 1470 | 1980 | 45 | 20 |
| 20 | 41 | 58 | 615 | 561 | 250 | 957 | 8310 | 370 | 346 | 3960 | 44 | 27 |
| 21 | 47 | 59 | 615 | 401 | 250 | 4580 | 4000 | 859 | 364 | 3890 | 49 | 28 |
| 22 | 32 | 64 | 594 | 396 | 409 | 9750 | 3440 | 1420 | 374 | 3480 | 70 | 27 |
| 23 | 29 | 112 | 587 | 395 | 638 | 10800 | 5800 | 1420 | 442 | 3700 | 58 | 28 |
| 24 | 29 | 219 | 585 | 395 | 1190 | 8410 | 10000 | 1400 | 424 | 3140 | 55 | 27 |
| 25 | 28 | 219 | 580 | 256 | 2110 | 8370 | 10100 | 1470 | 1940 | 1530 | 43 | 28 |
| 26 | 29 | 217 | 577 | 133 | 2030 | 8920 | 10300 | 2330 | 3670 | 722 | 42 | 28 |
| 27 | 29 | 288 | 325 | 134 | 1630 | 9850 | 9810 | 1040 | 3620 | 323 | 41 | 31 |
| 28 | 33 | 252 | 123 | 136 | 2460 | 9840 | 9240 | 48 | 3510 | 201 | 40 | 29 |
| 29 | 35 | 1720 | 126 | 138 | 2550 | 9960 | 7950 | 549 | 2950 | 148 | 40 | 29 |
| 30 | 43 | 3600 | 125 | 479 | --- | 10000 | 4110 | 1420 | 2430 | 127 | 39 | 29 |
| 31 | 41 | --- | 124 | 814 | --- | 10600 | --- | 1410 | --- | 117 | 38 | --- |
| TOTAL | 950 | 8028 | 22793 | 13503 | 24568 | 123147 | 245730 | 126894 | 84391 | 32558 | 1845 | 971 |
| MEAN | 30.6 | 268 | 735 | 436 | 847 | 3972 | 8191 | 4093 | 2813 | 1050 | 59.5 | 32.4 |
| MAX | 47 | 3600 | 3490 | 814 | 2550 | 10800 | 11000 | 10100 | 8560 | 3960 | 123 | 42 |
| MIN | 23 | 42 | 24 | 121 | 17 | 457 | 3440 | 48 | 101 | 117 | 38 | 20 |
| AC-FT | 1880 | 15920 | 45210 | 26780 | 48730 | 244300 | 487400 | 251700 | 167400 | 64580 | 3660 | 1930 |

CAL YR 1983 TOTAL 744226.5 MEAN 2039 MAX 12000 MIN 8.8 AC-FT 1476000
WTR YR 1984 TOTAL 685378.0 MEAN 1873 MAX 11000 MIN 17 AC-FT 1359000

## C7183000 NEOSHO RIVER NEAR IOLA, KS

LOCATION.--Lat 37 deg 53 min 27 sec, long 95 deg 25 min 50 sec, in SW1/4 NE1/4 NE1/4 sec.9, T.25 S., R.18 E., Allen County, Hydrologic Unit 11070204, on left bank, 1.0 mi downstream from Elm Creek, 3.0 mi southwest of Iola, and at mile 287.4.

DRAINAGE AREA.--3,818 sq mi.

PERIOD OF RECORD.--August 1895 to December 1903 (published as "at Iola"), October 1917 to current year. Monthly discharge only for some periods, published in WSP 1311. Figures of daily discharge for August 1895 to January 1898, published in previous reports, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1C37: 1819-24, 1926-29, 1935(M). WSP 1117: Drainage area. WSP 1311: 1895-98. WSP 1391: 1896(M), 1899, 1901-C2(M), 1903-04. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 914.77 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1917, nonrecording gage at tailgate of flume at milldam, 4.8 mi upstream at datum 12.2 ft higher.

REMARKS.--Records good except those for winter period, which are poor. Considerable regulation since 1963 by John Redmond Reservoir 59.3 mi upstream (see sta 07182450).

AVERAGE DISCHARGE.--72 years (water years 1899-1903, 1918-84), 1,760 cu ft per sec, 1,275,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 436,000 cu ft per sec July 13, 1951, gage height, 43.0 ft, from floodmark, from rating curve extended above 84,000 cu ft per sec on basis of slope-area measurement of peak flow; no flow at times in 1936, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,500 cu ft per sec Mar. 19, gage height, 20.60 ft; minimum, 18 cu ft per sec Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 32 | 43 | 3390 | 411 | 917 | 2930 | 10400 | 6500 | 1460 | 2310 | 163 | 32 |
| 2 | 32 | 617 | 3250 | 402 | 1370 | 2480 | 10500 | 9520 | 1430 | 2240 | 147 | 32 |
| 3 | 34 | 683 | 2130 | 389 | 1590 | 1200 | 12100 | 16100 | 1430 | 1370 | 129 | 32 |
| 4 | 36 | 416 | 2300 | 384 | 949 | 1340 | 12300 | 11600 | 1420 | 726 | 111 | 30 |
| 5 | 36 | 263 | 2200 | 389 | 224 | 2150 | 11700 | 9180 | 1400 | 499 | 100 | 32 |
| 6 | 32 | 159 | 1430 | 418 | 122 | 2370 | 10900 | 9160 | 1380 | 495 | 94 | 30 |
| 7 | 29 | 115 | 1050 | 603 | 97 | 2560 | 10600 | 8960 | 1360 | 480 | 90 | 26 |
| 8 | 34 | 92 | 750 | 654 | 482 | 2360 | 15400 | 9320 | 1580 | 486 | 132 | 26 |
| 9 | 30 | 86 | 272 | 580 | 1030 | 1820 | 15800 | 9790 | 14500 | 472 | 142 | 29 |
| 10 | 29 | 102 | 171 | 600 | 1020 | 931 | 8280 | 9490 | 13100 | 461 | 106 | 29 |
| 11 | 47 | 184 | 194 | 1060 | 863 | 646 | 7110 | 8920 | 2440 | 466 | 68 | 31 |
| 12 | 58 | 236 | 384 | 950 | 1180 | 832 | 12800 | 4790 | 2890 | 456 | 54 | 30 |
| 13 | 55 | 160 | 330 | 900 | 879 | 1210 | 10300 | 2590 | 7270 | 452 | 42 | 29 |
| 14 | 44 | 125 | 774 | 900 | 761 | 1040 | 7390 | 2500 | 8210 | 384 | 40 | 24 |
| 15 | 34 | 97 | 1270 | 935 | 709 | 1010 | 7060 | 3030 | 7790 | 254 | 42 | 22 |
| 16 | 36 | 79 | 1100 | 900 | 540 | 1020 | 6830 | 3130 | 6540 | 239 | 51 | 21 |
| 17 | 34 | 66 | 800 | 900 | 386 | 3770 | 9180 | 1650 | 7010 | 235 | 58 | 27 |
| 18 | 34 | 60 | 597 | 900 | 402 | 5960 | 9420 | 977 | 6830 | 231 | 55 | 36 |
| 19 | 65 | 69 | 600 | 900 | 390 | 18500 | 9740 | 792 | 4130 | 229 | 51 | 35 |
| 20 | 105 | 67 | 600 | 900 | 375 | 9870 | 9700 | 592 | 1800 | 2330 | 48 | 30 |
| 21 | 218 | 67 | 600 | 900 | 363 | 3470 | 12100 | 678 | 1000 | 3560 | 46 | 23 |
| 22 | 192 | 70 | 600 | 700 | 354 | 7270 | 9490 | 1130 | 666 | 3400 | 85 | 21 |
| 23 | 148 | 159 | 600 | 597 | 489 | 10100 | 4550 | 1520 | 1780 | 3080 | 96 | 23 |
| 24 | 98 | 220 | 600 | 578 | 695 | 11700 | 8330 | 1490 | 2860 | 3450 | 77 | 23 |
| 25 | 71 | 292 | 600 | 558 | 1480 | 10000 | 9980 | 1470 | 1000 | 2450 | 55 | 22 |
| 26 | 51 | 298 | 600 | 434 | 2730 | 9260 | 10200 | 1740 | 2590 | 1270 | 52 | 18 |
| 27 | 42 | 446 | 600 | 284 | 3730 | 10800 | 10100 | 2200 | 3670 | 724 | 41 | 18 |
| 28 | 40 | 2120 | 550 | 345 | 3900 | 10400 | 9630 | 1270 | 3710 | 451 | 37 | 25 |
| 29 | 33 | 1150 | 508 | 330 | 3360 | 10100 | 10900 | 417 | 3420 | 303 | 35 | 25 |
| 30 | 36 | 2270 | 407 | 310 | --- | 9910 | 10100 | 717 | 2660 | 226 | 36 | 27 |
| 31 | 36 | --- | 407 | 609 | --- | 10100 | --- | 1480 | --- | 183 | 33 | --- |
| TOTAL | 1801 | 10811 | 29654 | 19720 | 31387 | 167109 | 301490 | 142703 | 117326 | 33912 | 2306 | 808 |
| MEAN | 58.1 | 360 | 957 | 636 | 1082 | 5391 | 10050 | 4603 | 3911 | 1094 | 74.4 | 26.9 |
| MAX | 218 | 2270 | 3390 | 1060 | 3900 | 18500 | 15800 | 16100 | 14500 | 3560 | 163 | 36 |
| MIN | 29 | 43 | 171 | 284 | 97 | 646 | 4550 | 417 | 666 | 183 | 33 | 18 |
| AC-FT | 3570 | 21440 | 58820 | 39110 | 62260 | 331500 | 598000 | 283100 | 232700 | 67260 | 4570 | 1600 |

CAL YR 1983 TOTAL 967058 MEAN 2649 MAX 20900 MIN 29 AC-FT 1918000
WTR YR 1984 TOTAL 859027 MEAN 2347 MAX 18500 MIN 18 AC-FT 1704000

## 07183500 NEOSHO RIVER NEAR PARSONS, KS
(National stream-quality accounting network station)

LOCATION.--Lat 37 deg 18 min 39 sec, long 95 deg 06 min 37 sec, in NW1/4 NE1/4 sec.33, T.31 S., R.21 E., Labette County, Hydrologic Unit 11070205, on right bank 150 ft downstream from dam of Kansas Army Ammunition Plant, 8.0 mi southeast of Parsons, and at mile 201.4.

DRAINAGE AREA.--4,905 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only October 1921, published in WSP 1311.

REVISED RECORDS.--WSP 807: 1922-23. WSP 1391: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 810.25 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1929, nonrecording gage at bridge 2.2 mi upstream at datum 0.04 ft lower. Oct. 1, 1929, to Feb. 7, 1935, nonrecording gage, and Feb. 8, 1935, to Dec. 7, 1966, water-stage recorder at bridge 2.7 mi upstream at present datum.

REMARKS.--Records good. Flow moderately regulated since 1963 by John Redmond Reservoir 142.3 mi upstream (see sta 07182450). Small diversion by the Kansas Army Ammunition Plant.

AVERAGE DISCHARGE.--63 years, 2,560 cu ft per sec, 1,855,000 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 410,000 cu ft per sec July 14, 1951, gage height, 40.20 ft, from floodmark in gage well at site 2.7 mi upstream; no flow at times in 1934, 1936, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26,400 cu ft per sec Mar. 20, gage height, 20.94 ft; minimum, 11 cu ft per sec Oct. 16, Sept. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 45 | 80 | 2430 | 359 | 603 | 5170 | 11200 | 13700 | 1570 | 3000 | 268 | 36 |
| 2 | 42 | 75 | 3620 | 320 | 1090 | 4390 | 11800 | 7950 | 1660 | 2510 | 224 | 29 |
| 3 | 40 | 69 | 4200 | 302 | 1400 | 3490 | 13700 | 10100 | 1620 | 2390 | 190 | 36 |
| 4 | 44 | 685 | 4860 | 314 | 1800 | 3570 | 14000 | 16100 | 1640 | 1770 | 171 | 27 |
| 5 | 41 | 537 | 3620 | 332 | 1450 | 4100 | 13900 | 16400 | 1630 | 1090 | 155 | 23 |
| 6 | 28 | 421 | 2750 | 434 | 631 | 3290 | 12700 | 11000 | 1600 | 698 | 159 | 15 |
| 7 | 21 | 308 | 1970 | 520 | 324 | 3030 | 12500 | 10400 | 1600 | 619 | 139 | 14 |
| 8 | 21 | 232 | 1450 | 588 | 227 | 3100 | 19000 | 10000 | 2550 | 598 | 163 | 13 |
| 9 | 20 | 190 | 1200 | 790 | 194 | 2770 | 24100 | 10100 | 13700 | 595 | 116 | 24 |
| 10 | 19 | 151 | 727 | 837 | 968 | 2270 | 24500 | 10400 | 20200 | 572 | 107 | 39 |
| 11 | 23 | 125 | 583 | 783 | 1260 | 1550 | 18900 | 10200 | 23000 | 558 | 134 | 36 |
| 12 | 26 | 122 | 629 | 989 | 1530 | 1290 | 11500 | 9430 | 10600 | 555 | 128 | 26 |
| 13 | 21 | 153 | 548 | 1140 | 2270 | 2690 | 15500 | 5650 | 3980 | 528 | 97 | 20 |
| 14 | 19 | 251 | 624 | 1030 | 1620 | 2560 | 14200 | 3110 | 7750 | 522 | 74 | 19 |
| 15 | 17 | 220 | 617 | 1080 | 1210 | 1960 | 8520 | 2890 | 8600 | 501 | 61 | 19 |
| 16 | 14 | 177 | 1410 | 1030 | 1060 | 1750 | 7730 | 3360 | 8200 | 406 | 47 | 21 |
| 17 | 58 | 143 | 1360 | 970 | 957 | 5170 | 7510 | 3490 | 7130 | 327 | 39 | 23 |
| 18 | 88 | 127 | 1380 | 998 | 675 | 9800 | 9470 | 2200 | 7390 | 336 | 40 | 27 |
| 19 | 87 | 201 | 1350 | 930 | 595 | 22700 | 10200 | 1320 | 7420 | 298 | 40 | 27 |
| 20 | 463 | 321 | 682 | 911 | 564 | 25800 | 10700 | 1150 | 5160 | 275 | 41 | 25 |
| 21 | 10400 | 197 | 672 | 983 | 544 | 25100 | 19600 | 884 | 2700 | 1630 | 46 | 23 |
| 22 | 5770 | 248 | 682 | 968 | 528 | 10300 | 22600 | 863 | 1740 | 3700 | 59 | 26 |
| 23 | 1220 | 822 | 740 | 766 | 523 | 8560 | 15900 | 1120 | 1040 | 3620 | 54 | 30 |
| 24 | 558 | 559 | 851 | 670 | 512 | 13900 | 6910 | 1690 | 3120 | 3300 | 50 | 31 |
| 25 | 334 | 450 | 850 | 676 | 801 | 16000 | 8780 | 1690 | 3740 | 3600 | 64 | 30 |
| 26 | 233 | 445 | 860 | 700 | 2860 | 13300 | 10600 | 1670 | 1590 | 2710 | 81 | 25 |
| 27 | 173 | 1670 | 860 | 808 | 9920 | 11700 | 11100 | 2170 | 2680 | 1580 | 84 | 23 |
| 28 | 132 | 2980 | 860 | 718 | 10700 | 12400 | 11400 | 3220 | 4310 | 989 | 71 | 24 |
| 29 | 110 | 3250 | 840 | 664 | 6980 | 12000 | 10500 | 1920 | 4230 | 632 | 61 | 24 |
| 30 | 96 | 2050 | 600 | 706 | --- | 11300 | 12100 | 981 | 3810 | 440 | 56 | 23 |
| 31 | 85 | --- | 395 | 599 | --- | 10900 | --- | 647 | --- | 337 | 46 | --- |
| TOTAL | 20248 | 17259 | 44220 | 22915 | 53796 | 255910 | 401120 | 175805 | 165960 | 40686 | 3065 | 755 |
| MEAN | 653 | 575 | 1426 | 739 | 1855 | 8255 | 13370 | 5671 | 5532 | 1312 | 98.9 | 25.2 |
| MAX | 10400 | 3250 | 4860 | 1140 | 10700 | 25800 | 24500 | 16400 | 23000 | 3700 | 268 | 39 |
| MIN | 14 | 69 | 395 | 302 | 194 | 1290 | 6910 | 647 | 1040 | 275 | 39 | 13 |
| AC-FT | 40160 | 34230 | 87710 | 45450 | 106700 | 507600 | 795600 | 348700 | 329200 | 80700 | 6080 | 1500 |

CAL YR 1983 TOTAL 1325691 MEAN 3632 MAX 27800 MIN 14 AC-FT 2630000
WTR YR 1984 TOTAL 1201739 MEAN 3283 MAX 25800 MIN 13 AC-FT 2384000

## 07183500 NEOSHO RIVER NEAR PARSONS, KS--Continued
(National stream-quality accounting network station)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to September 1968, October 1979 to September 1981.
WATER TEMPERATURES: October 1963 to September 1968, October 1979 to September 1981.

### CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) | OXYGEN, DISSOLVED (MG/L) | BAROMETRIC PRESSURE (MM OF HG) | COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) | STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | |
| 25... | 14:30 | 325 | 202 | 7.7 | 13.5 | 9.9 | 733 | 2100 | 3000 |
| DEC | | | | | | | | | |
| 07... | 13:00 | 1970 | 441 | 8.2 | 3.0 | 11.7 | 736 | 2100 | 4700 |
| JAN | | | | | | | | | |
| 12... | 10:05 | 985 | 542 | 7.6 | 0.0 | -- | -- | -- | -- |
| FEB | | | | | | | | | |
| 29... | 13:55 | 6490 | 310 | 8.2 | 4.0 | 10.0 | 743 | 9 | 1 |
| APR | | | | | | | | | |
| 11... | 14:45 | 16700 | 269 | 7.4 | 14.0 | -- | -- | -- | -- |
| MAY | | | | | | | | | |
| 22... | 13:40 | 944 | 503 | 8.0 | 23.0 | -- | 739 | E59 | 16 |
| JUL | | | | | | | | | |
| 11... | 14:25 | 609 | 402 | 8.3 | 30.0 | -- | 738 | 17 | 39 |
| AUG | | | | | | | | | |
| 15... | 11:00 | 61 | 440 | 8.1 | 29.0 | -- | 742 | 17 | 88 |
| SEP | | | | | | | | | |
| 26... | 10:00 | 26 | 496 | 8.5 | 20.0 | -- | -- | -- | -- |

| DATE | TURBIDITY (NTU) | HARDNESS (MG/L AS CACO3) | HARDNESS NONCARBONATE (MG/L AS CACO3) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY LAB (MG/L AS CACO3) | CARBON DIOXIDE DISSOLVED (MG/L AS CO2) | SULFATE DISSOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 25... | 68 | 85 | 35 | 27 | 4.1 | 6.8 | 0.3 | 3.5 | 66 | 2.5 | 21 |
| DEC | | | | | | | | | | | |
| 07... | 52 | 190 | 189 | 56 | 12 | 18 | 0.6 | 3.7 | 136 | 1.6 | 57 |
| FEB | | | | | | | | | | | |
| 29... | 150 | 130 | 127 | 38 | 7.8 | 13 | 0.5 | 3.7 | 91 | 1.1 | 44 |
| MAY | | | | | | | | | | | |
| 22... | 12 | 230 | 227 | 66 | 14 | 15 | 0.5 | 3.3 | 195 | 5.0 | 57 |
| JUL | | | | | | | | | | | |
| 11... | 13 | 180 | 179 | 52 | 12 | 13 | 0.4 | 3.3 | 134 | 2.2 | 42 |
| AUG | | | | | | | | | | | |
| 15... | 14 | 200 | 196 | 55 | 14 | 15 | 0.5 | 3.8 | 164 | 3.6 | 51 |

| DATE | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) | PHOSPHORUS, TOTAL (MG/L AS P) | PHOSPHORUS, DISSOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 25... | 8.3 | 0.2 | 7.5 | 133 | 0.18 | 117 | 1.00 | 1.5 | 0.27 | 0.18 |
| DEC | | | | | | | | | | |
| 07... | 22 | 0.3 | 7.2 | 288 | 0.39 | 1530 | 1.00 | 1.8 | 0.17 | 0.17 |
| FEB | | | | | | | | | | |
| 29... | 15 | 0.2 | 5.8 | 209 | 0.28 | 3660 | 1.10 | 2.3 | 0.21 | 0.09 |
| MAY | | | | | | | | | | |
| 22... | 14 | 0.3 | 46 | 311 | 0.42 | 793 | 0.54 | 1.1 | 0.14 | 0.05 |
| JUL | | | | | | | | | | |
| 11... | 11 | 0.3 | 1.7 | 197 | 0.27 | 324 | 0.12 | 1.6 | 0.07 | 0.01 |
| AUG | | | | | | | | | | |
| 15... | 12 | 0.3 | 2.7 | 260 | 0.35 | 43 | <0.10 | 0.7 | 0.07 | 0.04 |

E Estimated value.

## 07183500 NEOSHO RIVER NEAR PARSONS, KS--Continued
(National stream-quality accounting network station)

### WATER QUALITY DATA, WATER YEAR OCTOBER 1953 TO SEPTEMBER 1984

| DATE | ALUMINUM, DISSOLVED (UG/L AS AL) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, DISSOLVED (UG/L AS BA) | BERYLLIUM, DISSOLVED (UG/L AS BE) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM, DISSOLVED (UG/L AS CR) | COBALT, DISSOLVED (UG/L AS CO) | COPPER, DISSOLVED (UG/L AS CU) | IRON, DISSOLVED (UG/L AS FE) | LEAD, DISSOLVED (UG/L AS PB) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 25... | 120 | 1 | 98 | <0.5 | <1 | <1 | <3 | 4 | 77 | 4 |
| FEB | | | | | | | | | | |
| 29... | 200 | 2 | 86 | <1 | <1 | <1 | <3 | 9 | 150 | 1 |
| MAY | | | | | | | | | | |
| 22... | 10 | <1 | 27 | 1 | <1 | <1 | <3 | 5 | 7 | <1 |
| AUG | | | | | | | | | | |
| 15... | 20 | 1 | 130 | <1 | <1 | 1 | <3 | 3 | <3 | 1 |

| DATE | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY DISSOLVED (UG/L AS HG) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | STRONTIUM, DISSOLVED (UG/L AS SR) | VANADIUM, DISSOLVED (UG/L AS V) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 25... | 8 | 8 | 0.1 | <10 | 3 | 1 | <1 | 190 | <6 | 12 |
| FEB | | | | | | | | | | |
| 29... | 5 | 9 | 16 | <10 | 4 | <1 | <1 | 340 | <6 | 31 |
| MAY | | | | | | | | | | |
| 22... | 280 | 5 | 0.2 | 50 | 1 | <1 | <1 | 3800 | <6 | 51 |
| AUG | | | | | | | | | | |
| 15... | 15 | 29 | 0.1 | <10 | 1 | <1 | <1 | 630 | <6 | 14 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|
| OCT | | | | | |
| 25... | 14:30 | 325 | 70 | 61 | 98 |
| DEC | | | | | |
| 07... | 13:00 | 1970 | 63 | 335 | 95 |
| JAN | | | | | |
| 12... | 10:05 | 988 | 13 | 35 | 95 |
| FEB | | | | | |
| 29... | 13:55 | 6490 | 336 | 5890 | 94 |
| APR | | | | | |
| 11... | 14:45 | 16700 | 285 | 13000 | 59 |
| MAY | | | | | |
| 22... | 13:40 | 944 | 31 | 79 | 96 |
| JUL | | | | | |
| 11... | 14:25 | 609 | E29 | -- | -- |
| AUG | | | | | |
| 15... | 11:00 | 61 | 22 | 3.4 | 94 |
| SEP | | | | | |
| 26... | 10:00 | 26 | 28 | 2.0 | 96 |

### PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM | SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM |
|---|---|---|---|---|---|
| APR | | | | | |
| 11... | 73 | 80 | 83 | 85 | 93 |

E Estimated value.

## 07184000 LIGHTNING CREEK NEAR MCCUNE, KS

LOCATION.--Lat 37 deg 16 min 56 sec, long 95 deg 01 min 56 sec, in NE1/4 NE1/4 sec.7, T.32 S., R.22 E., Cherokee County, Hydrologic Unit 11070205, at downstream side of highway bridge, 5.0 mi south of McCune, 13.0 mi southeast of Parsons, and at mile 12.6.

DRAINAGE AREA.--197 sq mi.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to September 1946, October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 818.10 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Mar. 10, 1945, nonrecording gage and Mar. 10, 1945, to Sept. 30, 1946, water-stage recorder at present site and datum. Oct. 1, 1959, to May 26, 1960, water-stage recorder 100 ft downstream at present datum.

REMARKS.--Records fair except those for periods of no gage-height record, Oct. 23, 24, Dec. 23 to Jan. 19, Feb. 28, 29, Mar. 17, 20, 26, Apr. 16 to May 23, which are poor.

AVERAGE DISCHARGE.--33 years, 138 cu ft per sec, 99,980 acre-ft per yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,000 cu ft per sec May 19, 1943, gage height, 17.81 ft, from rating curve extended above 15,000 cu ft per sec; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) | Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| Oct. 22 | 0800 | *4,150 | 15.91 | Mar. 20 | unknown | 3,370 | unknown |
| Nov. 28 | 0500 | 2,310 | 12.66 | Apr. 9 | 0300 | 2,920 | 14.68 |
| Feb. 28 | -- | 2,290 | unknown | Apr. 24 | unknown | unknown | unknown |

No flow July 31 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .11 | 7.3 | 65 | 36 | 103 | 299 | 155 | 78 | 8.8 | 1.8 | .00 | .00 |
| 2 | .11 | 5.7 | 47 | 37 | 92 | 222 | 162 | 95 | 7.2 | 1.2 | .00 | .00 |
| 3 | .11 | 4.7 | 98 | 39 | 89 | 142 | 519 | 130 | 6.2 | .92 | .00 | .00 |
| 4 | .08 | 4.5 | 949 | 50 | 85 | 881 | 247 | 80 | 5.4 | .89 | .00 | .00 |
| 5 | .06 | 4.3 | 380 | 70 | 80 | 1100 | 118 | 72 | 4.7 | .78 | .00 | .00 |
| 6 | .06 | 5.7 | 117 | 78 | 74 | 188 | 76 | 71 | 4.5 | .55 | .00 | .00 |
| 7 | .06 | 6.0 | 69 | 85 | 69 | 88 | 147 | 80 | 4.0 | .60 | .00 | .00 |
| 8 | .05 | 5.4 | 46 | 89 | 65 | 65 | 2290 | 90 | 4.0 | .60 | .00 | .00 |
| 9 | .04 | 4.3 | 36 | 90 | 68 | 49 | 2400 | 64 | 3.8 | .55 | .00 | .00 |
| 10 | .03 | 3.7 | 30 | 86 | 196 | 39 | 503 | 54 | 75 | .41 | .00 | .00 |
| 11 | .06 | 4.5 | 126 | 80 | 208 | 35 | 194 | 50 | 134 | .31 | .00 | .00 |
| 12 | .06 | 6.5 | 206 | 72 | 145 | 42 | 959 | 47 | 76 | .28 | .00 | .00 |
| 13 | .05 | 6.5 | 113 | 60 | 114 | 215 | 588 | 44 | 29 | .22 | .00 | .00 |
| 14 | .04 | 5.5 | 93 | 46 | 94 | 143 | 153 | 41 | 17 | .19 | .00 | .00 |
| 15 | .03 | 3.9 | 62 | 42 | 84 | 72 | 81 | 43 | 12 | .16 | .00 | .00 |
| 16 | .03 | 2.9 | 33 | 39 | 79 | 82 | 78 | 60 | 8.9 | .15 | .00 | .00 |
| 17 | 144 | 2.5 | 26 | 37 | 77 | 1170 | 77 | 41 | 6.7 | .15 | .00 | .00 |
| 18 | 247 | 2.2 | 23 | 36 | 76 | 351 | 76 | 28 | 4.7 | .11 | .00 | .00 |
| 19 | 62 | 1.9 | 14 | 37 | 75 | 278 | 80 | 22 | 3.2 | .10 | .00 | .00 |
| 20 | 480 | 1.5 | 11 | 44 | 73 | 1330 | 84 | 15 | 2.5 | .08 | .00 | .00 |
| 21 | 3010 | 1.6 | 9.2 | 55 | 69 | 815 | 88 | 14 | 92 | .12 | .00 | .00 |
| 22 | 3780 | 6.2 | 8.1 | 61 | 67 | 206 | 300 | 11 | 136 | .14 | .00 | .00 |
| 23 | 150 | 1020 | 5.7 | 62 | 65 | 136 | 2500 | 10 | 35 | .13 | .00 | .00 |
| 24 | 80 | 754 | 5.2 | 63 | 63 | 945 | 2600 | 12 | 40 | .11 | .00 | .00 |
| 25 | 54 | 130 | 5.3 | 64 | 61 | 773 | 140 | 10 | 46 | .08 | .00 | .00 |
| 26 | 32 | 52 | 5.5 | 82 | 156 | 334 | 78 | 9.0 | 19 | .06 | .00 | .00 |
| 27 | 24 | 1180 | 5.6 | 210 | 1570 | 474 | 76 | 11 | 11 | .04 | .00 | .00 |
| 28 | 18 | 2000 | 5.7 | 228 | 2090 | 191 | 88 | 18 | 7.2 | .02 | .00 | .00 |
| 29 | 14 | 469 | 6.0 | 199 | 710 | 223 | 200 | 15 | 4.2 | .01 | .00 | .00 |
| 30 | 9.9 | 110 | 7.0 | 171 | --- | 138 | 130 | 12 | 2.5 | .01 | .00 | .00 |
| 31 | 8.4 | --- | 15 | 125 | --- | 97 | --- | 10 | --- | .00 | .00 | --- |
| TOTAL | 8114.28 | 5812.3 | 2622.3 | 2473 | 6797 | 11123 | 15187 | 1337.0 | 810.5 | 10.77 | .00 | .00 |
| MEAN | 262 | 194 | 84.6 | 79.8 | 234 | 359 | 506 | 43.1 | 27.0 | .35 | .000 | .000 |
| MAX | 3780 | 2000 | 949 | 228 | 2090 | 1330 | 2600 | 130 | 136 | 1.8 | .00 | .00 |
| MIN | .03 | 1.5 | 5.2 | 36 | 61 | 35 | 76 | 9.0 | 2.5 | .00 | .00 | .00 |
| AC-FT | 16090 | 11530 | 5200 | 4910 | 13480 | 22060 | 30120 | 2650 | 1610 | 21 | .00 | .00 |

CAL YR 1983 TOTAL 75529.91 MEAN 207 MAX 6960 MIN .01 AC-FT 149800
WTR YR 1984 TOTAL 54287.15 MEAN 148 MAX 3780 MIN .00 AC-FT 107700

## 07184000 LIGHTNING CREEK NEAR MCCUNE, KS--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT | | | | | |
| 25... | 11:25 | 54 | 423 | 7.7 | 12.5 |
| DEC | | | | | |
| 07... | 16:20 | 69 | 469 | 7.4 | 3.0 |
| JAN | | | | | |
| 11... | 16:50 | 80 | 542 | 7.3 | 0.0 |
| FEB | | | | | |
| 29... | 10:50 | 619 | 400 | 7.3 | 4.0 |
| APR | | | | | |
| 03... | 14:20 | 567 | 405 | 7.9 | 10.0 |
| 11... | 09:35 | 203 | 461 | 7.7 | 13.0 |
| MAY | | | | | |
| 22... | 11:00 | 10 | 964 | 7.6 | 21.0 |
| JUL | | | | | |
| 11... | 10:20 | 0.3 | 379 | 7.4 | 25.5 |

### SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| OCT | | | | |
| 25... | 11:25 | 54 | 128 | 19 |
| DEC | | | | |
| 07... | 16:20 | 69 | 76 | 14 |
| JAN | | | | |
| 11... | 16:50 | 80 | 58 | 13 |
| FEB | | | | |
| 29... | 10:50 | 619 | 166 | 277 |
| APR | | | | |
| 11... | 09:35 | 203 | 85 | 47 |
| MAY | | | | |
| 22... | 11:00 | 10 | 56 | 1.5 |
| JUL | | | | |
| 11... | 10:20 | 0.3 | 33 | 0.03 |

## DISCHARGE AT PARTIAL-RECORD STATIONS

As the number of streams on which streamflow information is likely to be desired far exceeds the number of streamflow-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than streamflow-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or high-flow analyses, depending on the type of data collected.

Records collected at partial-record stations are presented in three tables. The first is a table of annual maximum stage and discharge at high-flow stations, the second is a table of discharge measurements at low-flow stations, and the third is a table of stage and discharge for indicated times at flood hydrograph stations.

### High-flow stations

The following table contains annual maximum discharges for high-flow stations. A high-flow gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at high-flow stations

| | | | | | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| Station Number | Station name | Location | Drainage area (sq mi) | Period of record | Date | Gage height (feet) | Discharge (cu ft per sec) |
| | | Big Nemaha River basin | | | | | |
| 06813700 | Tennessee Creek tributary near Seneca, KS | Lat 39 deg 48 min 46 sec, long 96 deg 02 min 44 sec, in SE1/4 SW1/4 sec.2, T.3 S., R.12 E., Nemaha County, Hydrologic Unit 10240007, above culvert on county highway, 1.8 mi southeast of Seneca. | 0.90 | 1957-84 | 6-08-84 | 18.07 | 920 |
| | | Wolf River basin | | | | | |
| 06815700 | Buttermilk Creek near Willis, KS | Lat 39 deg 45 min 16 sec, long 95 deg 27 min 02 sec, in SW1/4 SW1/4 sec.30, T.3 S., R.18 E., Brown County, Hydrologic Unit 10240005, at downstream side of county highway bridge, 3.6 mi northeast of Willis. Published as "South Branch Wolf Creek tributary" 1957-60, as "South Fork Wolf River tributary" 1961. | 3.74 | 1957-84 | 6-08-84 | 20.18 | 6,000 |
| | | Independence Creek basin | | | | | |
| 06818260 | White Clay Creek at Atchison, KS | Lat 39 deg 33 min 33 sec, long 95 deg 07 min 38 sec, in SW1/4 NE1/4 sec.1, T.6 S., R.20 E., Atchison County, Hydrologic Unit 10240011, on right bank at center of highway bridge, on 10th Street in Atchison and 0.15 mi downstream from Brewery Creek. | 13.1 | 1972-84 | 6-08-84 | 11.85 | 1,800 |
| | | Kansas River basin | | | | | |
| 06844800 | South Fork Sappa Creek tributary near Goodland, KS | Lat 39 deg 19 min 14 sec, long 101 deg 37 min 57 sec, in NW1/4 NW1/4 sec.36, T.8 S., R.39 W., Sherman County, Hydrologic Unit 10250010, below culvert on county highway, 4.5 mi southeast of Goodland. | 4.98 | 1957-84 | 6-16-84 | 11.77 | 37 |
| 06845100 | Long Branch Draw near Norcatur, KS | Lat 39 deg 54 min 06 sec, long 100 deg 10 min 43 sec, in SW1/4 SW1/4 sec.6, T.2 S., R.25 W., Decatur-Norton County line, Hydrologic Unit 10250011, on downstream side of county highway bridge, 4.7 mi north of Norcatur. | 31.7 | 1957-84 | 4-22-84 | 13.70 | 72 |

## DISCHARGE AT PARTIAL-RECORD STATIONS

### Annual maximum discharge at high-flow stations

| Station Number | Station name | Location | Drainage area (sq mi) | Period of record | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| | | | | | Date | Gage height (feet) | Discharge (cu ft per sec) |
| | | Kansas River basin--continued | | | | | |
| 06846000 | Beaver Creek at Ludell, KS | Lat 39 deg 50 min 50 sec, long 100 deg 57 min 30 sec, in NW1/4 SW1/4 sec.30 T.2 S., R.32 W., Rawlins County, Hydrologic Unit 10250014, at downstream side of bridge on county highway, 120 ft downstream from Chicago, Burlington, and Quincy Railway Co. bridge, 0.5 mi south of Ludell and 9.6 mi downstream from Little Beaver Creek. Prior to June 30, 1932, at site 120 ft upstream and at datum 0.7 ft higher. | 1,460 | 1930-32#,<br>1946-53#,<br>1961-84 | 7-16-84 | 6.22 | 105 |
| 06846200 | Beaver Creek tributary near Ludell, KS | Lat 39 deg 48 min 53 sec, long 100 deg 52 min 19 sec, in SE1/4 SE1/4 sec.2, T.3 S., R.32 W., Rawlins County, Hydrologic Unit 10250014, at downstream end of culvert on U.S. Highway 36, 5.4 mi southeast of Ludell. | 10.2 | 1957-84 | 1984 | --- | 0 |
| 06847600 | Prairie Dog Creek tributary at Colby, KS | Lat 39 deg 23 min 28 sec, long 101 deg 02 min 43 sec, in SW1/4 NW1/4 NE1/4 sec.6, T.8 S., R.33 W., Thomas County, Hydrologic Unit 10250015, at downstream side of bridge on Franklin Avenue in Colby. Prior to Mar. 31, 1971, at site 0.3 mi upstream and at same datum. | 7.53 | 1957-84 | 8-20-84 | 10.74 | 175 |
| 06848200 | Prairie Dog Creek tributary near Norton, KS | Lat 39 deg 51 min 15 sec, long 99 deg 53 min 17 sec, in NW1/4 NW1/4 sec.26, T.2 S., R.23 W., Norton County, Hydrologic Unit 10250015, at downstream side of bridge on U.S. Highway 283, 1.6 mi north of Norton. | 1.02 | 1957-84 | 5-22-84 | 11.27 | 64 |
| 06856100 | West Creek near Talmo, KS | Lat 39 deg 40 min 00 sec, long 97 deg 36 min 48 sec, in NW1/4 NW1/4 sec.36, T.4 S., R.3 W., Republic County, Hydrologic Unit 10250017, at downstream side of county highway bridge, 2.5 mi southwest of Talmo. Published as "West Salt Creek" 1957-71. | 42.0 | 1957-84 | 6-29-84 | 14.04 | 250 |
| 06856320 | Elk Creek at Clyde, KS | Lat 39 deg 35 min 40 sec, long 97 deg 23 min 49 sec, in NW1/4 NE1/4 sec.26, T.4 S., R.3 W., Republic County, Hydrologic Unit 10250017, at downstream side of Chicago, Rock Island Railroad bridge in Clyde and 2.8 mi upstream from mouth. | 73.0 | 1970-84 | 6-09-84 | 6.05 | 285 |
| 06856800 | Holl Creek near Green, KS | Lat 39 deg 22 min 43 sec, long 97 deg 00 min 28 sec, in NE1/4 NW1/4 sec.5, R.8 S., R.4 E., Clay County, Hydrologic Unit 10250017, at downstream side of bridge on U.S. Highway 24, 3.3 mi southwest of Green. Prior to July 15, 1965, at site 60 ft upstream at same datum. | 3.60 | 1957-84 | 4-03-84 | 15.34 | 250 |
| 06860500 | Hackberry Creek near Gove, KS | Lat 38 deg 57 min 15 sec, long 100 deg 29 min 05 sec, in SW1/4 NE1/4 sec.1 T.13 S., R.29 W., Gove County, Hydrologic Unit 10260005, near right bank at downstream side of bridge on State Highway 23, 0.5 mi south of Gove. | 426 | 1948-53#,<br>1960-84 | 4-29-84 | 2.86 | 102 |
| 06863000 | Smoky Hill River at Pfeifer, KS | Lat 38 deg 42 min 51 sec, long 99 deg 09 min 10 sec, in SW1/4 SW1/4 sec.30, T.15 S., R.16 W., Ellis County, Hydrologic Unit 10260006, near right bank on downstream side of county highway bridge 1.0 mi northeast of Pfeifer. | 6,033 | 1929-32#,<br>1970-84 | 4-22-84 | 4.07 | 540 |

# Operated as a continuous-record streamflow-gaging station.

## Annual maximum discharge at high-flow stations

| | | | | | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| Station Number | Station name | Location | Drainage area (sq mi) | Period of record | Date | Gage height (feet) | Discharge (cu ft per sec) |
| | | Kansas River basin--continued | | | | | |
| 06863400 | Big Creek tributary near Ogallah, KS | Lat 38 deg 56 min 00 sec, long 99 deg 44 min 33 sec, in NW1/4 SW1/4 sec.11, T.13 S., R.22 W., Trego County, Hydrologic Unit 10260007, at downstream side of bridge on State Highway 147, 4.0 mi southwest of Ogallah. | 4.81 | 1957-84 | 4-02-84 | 11.84 | 120 |
| 06863700 | Big Creek tributary near Hays, KS | Lat 38 deg 51 min 08 sec, long 99 deg 14 min 48 sec, in SE1/4 NE1/4 sec.7, T.14 S., R.17 W., Ellis County, Hydrologic Unit 10260007, at downstream side of culvert on old U.S. Highway 40 at Toulon, 4.7 mi southeast of Hays. | 6.19 | 1957-84 | 1984 | --- | 0 |
| 06864300 | Smoky Hill River tributary at Dorrance, KS | Lat 38 deg 50 min 52 sec, long 98 deg 35 min 44 sec, in NE1/4 SE1/4 sec.12, T.14 S., R.12 W., Russell County, Hydrologic Unit 10260006, at downstream end of culvert on old U.S. Highway 40 at Dorrance. | 5.39 | 1957-84 | 6-25-83<br>6-26-84 | 12.33<br>13.08 | b148<br>367 |
| 06864700 | Spring Creek near Kanopolis, KS | Lat 38 deg 44 min 23 sec, long 98 deg 10 min 07 sec, in NW1/4 NW1/4 sec.24, T.15 S., R.8 W., Ellsworth County, Hydrologic Unit 10260006, at downstream end of culvert on old U.S. Highway 40, 2.2 mi northwest of Kanopolis. | 9.84 | 1957-84 | 4-30-84 | 12.19 | 240 |
| 06866490 | Dry Creek at Mentor, KS | Lat 38 deg 44 min 11 sec, long 97 deg 36 min 46 sec, in SW1/4 NW1/4 sec.24, T.15 S., R.3 W., Saline County, Hydrologic Unit 10260008, near right bank at downstream side of bridge on U.S. Highway 81, 0.6 mi southwest of Mentor and 1.7 mi upstream from mouth. | 37.0 | 1970-84 | 4-30-84 | 11.65 | + |
| 06866800 | Saline River tributary at Collyer, KS | Lat 39 deg 02 min 46 sec, long 100 deg 07 min 36 sec, in SW1/4 SW1/4 sec.32, T.11 S., R.25 W., Trego County, Hydrologic Unit 10260009, at downstream side of county highway bridge, 0.7 mi northwest of Collyer. | 3.13 | 1957-84 | 4-02-84 | 10.37 | 18 |
| 06868300 | Coon Creek tributary near Luray, KS | Lat 39 deg 10 min 30 sec, long 98 deg 42 min 02 sec, in NW1/4 NE1/4 sec.19, T.10 S., R.12 W., Osborne County, Hydrologic Unit 10260010, at downstream side of county highway bridge, 4.4 mi northwest of Luray. | 6.53 | 1957-84 | 4-30-84 | 16.08 | 275 |
| 06868400 | Wolf Creek near Lucas, KS | Lat 39 deg 03 min 30 sec, long 98 deg 33 min 10 sec, in NW1/4 NW1/4 sec.33 T.11 S., R.11 W., Russell County, Hydrologic Unit 10260010, at downstream side of highway bridge, 1.2 mi west of Lucas, 4.0 mi upstream from East Fork, and 15 mi upstream from mouth. | 163 | 1960-71#,<br>1972-84 | 4-30-84 | 13.82 | 620 |
| 06868900 | Bullfoot Creek tributary near Lincoln, KS | Lat 38 deg 58 min 27 sec, long 98 deg 09 min 03 sec, in SW1/4 SW1/4 sec.30, T.12 S., R.7 W., Lincoln County, Hydrologic Unit 10260010, at downstream side of bridge on State Highway 14, 4.6 mi south of Lincoln. Published as "Elkhorn Creek tributary" 1957-70. | 2.64 | 1957-84 | 4-30-84 | 11.90 | 24 |

# Operated as a continuous-record streamflow-gaging station.
+ Not determined.
b Revised.

Annual maximum discharge at high-flow stations

| Station Number | Station name | Location | Drainage area (sq mi) | Period of record | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| | | | | | Date | Gage height (feet) | Discharge (cu ft per sec) |
| | | Kansas River basin--continued | | | | | |
| 06869950 | Mulberry Creek near Salina, KS | Lat 38 deg 50 min 40 sec, long 97 deg 40 min 05 sec, in SW1/4 SW1/4 sec.8, T.14 S., R.3 W., Saline County, Hydrologic Unit 10260010, at left downstream pier of bridge on county highway, 2.0 mi downstream from Spring Creek, 2.0 mi west of Salina and 9.0 mi upstream from mouth. | 250 | 1961-84 | 4-30-84 | 22.30 | 2,650 |
| 06872600 | Oak Creek at Bellaire, KS | Lat 39 deg 47 min 54 sec, long 98 deg 40 min 00 sec, in NW1/4 NW1/4 sec.15, T.3 S., R.12 W., Smith County, Hydrologic Unit 10260012, at downstream side of bridge at Bellaire. Prior to Sept. 8, 1965, at same site at datum 2.18 ft lower. | 4.75 | 1957-84 | 4-21-84 | 13.26 | 45 |
| 06873300 | Ash Creek tributary near Stockton, KS | Lat 39 deg 26 min 15 sec, long 99 deg 22 min 16 sec, in SE1/4 SW1/4 sec.18, T.7 S., R.18 W., Rooks County, Hydrologic Unit 10260014, at upstream end of culvert on old U.S. Highway 24, 5.3 mi west of Stockton. | 0.89 | 1957-84 | 1984 | --- | 0 |
| 06874500 | East Limestone Creek near Ionia, KS | Lat 39 deg 41 min 52 sec, long 98 deg 20 min 19 sec, in NE1/4 NW1/4 sec.21, T.4 S., R.9 W., Jewell County, Hydrologic Unit 10260015, at downstream side of county highway bridge, 2.5 mi northeast of Ionia. Prior to Oct. 1, 1956, at same site and datum 6.2 ft higher. | 25.6 | 1934-38#,<br>1957-84 | 10-12-83 | 19.94 | 1,100 |
| 06875800 | Limestone Creek near Glen Elder, KS | Lat 39 deg 32 min 18 sec, long 98 deg 18 min 58 sec, in NE1/4 NW1/4 NW1/4 sec.15, T.6 S., R.9 W., Mitchell County, Hydrologic Unit 10260015, 150 ft downstream from highway bridge, 2.0 mi north of Glen Elder, and 7.4 mi upstream from mouth. | 210 | 1965-71#,<br>1972-84 | 10-12-83 | 16.92 | 1,400 |
| 06877120 | Mud Creek at Abilene, KS | Lat 38 deg 55 min 47 sec, long 97 deg 13 min 39 sec, in NE1/4 NE1/4 sec.17, T.13 S., R.2 E., Dickinson County, Hydrologic Unit 10260008, at downstream side of bridge on old U.S. Highway 40 on north edge of Abilene. | 87.0 | 1970-84 | 1984 | * | <1,500 |
| 06877500 | Turkey Creek near Abilene, KS | Lat 38 deg 48 min 22 sec, long 97 deg 10 min 53 sec, in SE1/4 SW1/4 NW1/4 sec.26, T.14 S., R.2 E., Dickinson County, Hydrologic Unit 10260008, at downstream side of bridge immediately below mouth of West Branch Turkey Creek, 8.0 mi south of Abilene. | 143 | 1958-65#,<br>1966-84 | 6-07-84 | 19.27 | 2,000 |
| 06879200 | Clark Creek near Junction City, KS | Lat 39 deg 00 min 28 sec, long 96 deg 44 min 20 sec, in NE1/4 NW1/4 SW1/4 sec.14, T.12 S., R.6 E., Geary County, Hydrologic Unit 10270101, at upstream side of bridge on State Highway 57, 5.0 mi southeast of Junction City, 7.5 mi upstream from Humboldt Creek. | 200 | 1957-65#,<br>1966-84 | 6-07-84 | 10.87 | 2,450 |

# Operated as a continuous-record streamflow-gaging station.
* Peak did not reach bottom of gage.

### Annual maximum discharge at high-flow stations

| Station Number | Station name | Location | Drainage area (sq mi) | Period of record | Annual maximum<br>Date | Annual maximum<br>Gage height (feet) | Annual maximum<br>Discharge (cu ft per sec) |
|---|---|---|---|---|---|---|---|
| | | Kansas River basin--continued | | | | | |
| 06879815 | Wildcat Creek at Manhattan, KS | Lat 39 deg 11 min 05 sec, long 96 deg 36 min 37 sec, in NW1/4 SE1/4 NE1/4 sec.14, T.10 S., R.7 E., Riley County, Hydrologic Unit 10270101, on downstream side of bridge on State Highway 113 in Manhattan, and 5.5 mi above mouth. | 74.0 | 1974-84 | 6-09-84 | 17.42 | 3,050 |
| 06884100 | Mulberry Creek tributary near Haddam, KS | Lat 39 deg 48 min 49 sec, long 97 deg 17 min 56 sec, in NE1/4 NE1/4 sec.10, T.3 S., R.1 E., Washington County, Hydrologic Unit 10270207, above culvert on U.S. Highway 36, 3.0 mi south of Haddam. Published as "Mill Creek tributary" 1957-71. | 1.64 | 1957-84 | 6-09-84 | 13.63 | 235 |
| 06884300 | Mill Creek tributary near Washington, KS | Lat 39 deg 48 min 48 sec, long 97 deg 00 min 30 sec, in SW1/4 SW1/4 sec.5, T.3 S., R.4 E., Washington County, Hydrologic Unit 10270207, at downstream end of culvert on U.S. Highway 36, 2.2 mi east of Washington. | 3.20 | 1957-84 | 6-22-84 | 18.30 | 1,600 |
| 06884900 | Robidoux Creek at Beattie, KS | Lat 39 deg 51 min 48 sec, long 96 deg 25 min 47 sec, in SW1/4 NE1/4 sec.20, T.2 S., R.9 E., Marshall County, Hydrologic Unit 10270205, at downstream side of county highway bridge, 0.8 mi northwest of Beattie. | 40.0 | 1957-84 | 6-09-84 | 18.90 | * |
| 06886500 | Fancy Creek at Winkler, KS | Lat 39 deg 28 min 20 sec, long 96 deg 49 min 55 sec, in NW1/4 NE1/4 SE1/4 sec.2, T.7 S., R.5 E., Riley County, Hydrologic Unit 10270205, at downstream side of county highway bridge, 0.2 mi downstream from Otter Creek, 0.4 mi south of Winkler, and at mile 13.2. | 174 | 1953-71#,<br>1972-84 | 4-06-84 | 11.96 | 4,100 |
| 06887200 | Cedar Creek near Manhattan, KS | Lat 39 deg 15 min 31 sec, long 96 deg 33 min 48 sec, in NE1/4 NE1/4 sec.19, T.9 S., R.8 E., Pottawatomie County, Hydrologic Unit 10270205, at downstream side of county highway bridge, 5.5 mi north of Manhattan. | 13.4 | 1957-84 | 6-09-84 | 21.13 | 5,000 |
| 06887600 | Kansas River tributary near Wamego, KS | Lat 39 deg 10 min 28 sec, long 96 deg 15 min 45 sec, in SE1/4 SE1/4 sec.14 T.10 S., R.10 E., Wabaunsee County, Hydrologic Unit 10270102, at upstream end of culvert on county highway, 3.0 mi southeast of Wamego. | 0.83 | 1951,<br>1957-84 | 6-09-84 | 12.44 | 290 |
| 06888000 | Vermillion Creek near Wamego, KS | Lat 39 deg 21 min 00 sec, long 96 deg 13 min 10 sec, in NE1/4 NW1/4 NW1/4 sec.20, T.8 S., R.11 E., Pottawatomie County, Hydrologic Unit 10270102, at highway bridge, 1.0 mi upstream from Indian Creek, 14 mi northeast of Wamego, and at mile 15.8. | 263 | 1936-46#,<br>1954-72#,<br>1972-84 | 6-09-84 | 30.14 | 21,000 |
| 06888030 | Vermillion Creek near Louisville, KS | Lat 39 deg 16 min 42 sec, long 96 deg 14 min 34 sec, in NW1/4 SE1/4 SE1/4 sec.12, T.9 S., R.10 E., Pottawatomie County, Hydrologic Unit 10270102, on left bank 1.3 mi upstream from Adams Creek, 4.0 mi northeast of Louisville. | 297 | 1970-84 | 6-09-84 | c43.4 | * |

# Operated as a continuous-record streamflow-gaging station.
* Not determined.
c From floodmark.

Annual maximum discharge at high-flow stations

| Station Number | Station name | Location | Drainage area (sq mi) | Period of record | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| | | | | | Date | Gage height (feet) | Discharge (cu ft per sec) |
| | | Kansas River basin--continued | | | | | |
| 06888300 | Rock Creek near Louisville, KS | Lat 39 deg 15 min 53 sec, long 96 deg 22 min 47 sec, in SE1/4 NE1/4 SW1/4 sec.14, T.9 S., R.9 E., Pottawatomie County, Hydrologic Unit 10270103, at downstream side of highway bridge, 4.0 mi west of Louisville. | 128 | 1958-63#,<br>1966-84 | 6-09-84 | 34.76 | 17,000 |
| 06888900 | Blacksmith Creek tributary near Valencia, KS | Lat 39 deg 01 min 20 sec, long 95 deg 50 min 06 sec, in SW1/4 NW1/4 sec.11, T.12 S., R.14 E., Shawnee County, Hydrologic Unit 10270102, at downstream side of county highway bridge, 4.3 mi southeast of Valencia. | 1.31 | 1957-84 | 6-21-84 | 12.90 | 940 |
| 06889550 | Indian Creek near Topeka, KS | Lat 39 deg 07 min 27 sec, long 95 deg 39 min 05 sec, in SE1/4 SE1/4 NE1/4 sec.5, T.11 S., R.16 E., Shawnee County, Hydrologic Unit 10270102, 3.0 mi north of Topeka and 2.7 mi upstream from Soldier Creek (new channel). | 9.72 | 1970-84 | 6-21-84 | 14.50 | 1,350 |
| 06889630 | Shunganunga Creek at Topeka, KS | Lat 39 deg 01 min 54 sec, long 95 deg 40 min 57 sec, in SW1/4 SE1/4 SW1/4 sec.6, T.12 S., R.16 E., Shawnee County, Hydrologic Unit 10270102, on downstream side of bridge on U.S. Highway 75, 700 ft north of 21st Street in Topeka. | 33.5 | 1970-84 | 6-28-84 | 12.58 | 2,300 |
| 06891050 | Stone House Creek at Williamstown, KS | Lat 39 deg 04 min 00 sec, long 95 deg 20 min 09 sec, in SE1/4 SE1/4 NE1/4 sec.30, T.11 S., R.19 E., Jefferson County, Hydrologic Unit 10270104, at downstream side of bridge on U.S. Highway 24, 0.1 mi north of Williamstown. | 12.9 | 1963-84 | 6-21-84 | 15.70 | 1,800 |
| 06891650 | Naismith Creek at Lawrence, KS | Lat 38 deg 56 min 03 sec, long 95 deg 15 min 08 sec, in NE1/4 NE1/4 SW1/4 sec.12, T.13 S., R.19 E., Douglas County, Hydrologic Unit 10270104, at downstream side of 27th Street bridge in Lawrence, and 6.0 mi above mouth. | 1.54 | 1974-84 | 6-21-84 | 15.07 | 1,600 |
| 06892800 | Turkey Creek at Merriam, KS | Lat 39 deg 00 min 28 sec, long 94 deg 41 min 56 sec, in SW1/4 SE1/4 NW1/4 sec.13, T.12 S., R.24 E., Johnson County, Hydrologic Unit 10270104, on downstream side of bridge on 67th Street, at Merriam. | 6.76 | 1974-84 | 6-09-84 | 16.16 | 950 |
| 06892960 | Turkey Creek at Kansas City, KS | Lat 39 deg 03 min 31 sec, long 94 deg 37 min 33 sec, in SE1/4 SW1/4 SW1/4 sec.27, T.11 S., R.25 E., Wyandotte County, Hydrologic Unit 10270104, on downstream side of bridge on State Highway 10, at Kansas City. | 22.3 | 1974-84 | 6-09-84 | 22.60 | 9,100 |
| | | Osage River basin | | | | | |
| 06912300 | Dragoon Creek tributary near Lyndon, KS | Lat 38 deg 41 min 33 sec, long 95 deg 41 min 06 sec, in NW1/4 NW1/4 sec.6, T.16 S., R.16 E., Osage County, Hydrologic Unit 10290101, at downstream side of bridge on U.S. Highway 75, 5.8 mi north of Lyndon. | 3.76 | 1957-84 | 6-09-84 | 14.65 | 2,080 |
| 06913700 | Middle Creek near Princeton, KS | Lat 38 deg 28 min 39 sec, long 95 deg 15 min 08 sec, in SE1/4 SE1/4 sec.13, T.18 S., R.19 E., Franklin County, Hydrologic Unit 10290101, at downstream side of bridge on U.S. Highway 59, 1.3 mi southeast of Princeton. | 52.0 | 1957-84 | 6-09-84 | 27.03 | 7,700 |

# Operated as a continuous-record streamflow-gaging station.

## Annual maximum discharge at high-flow stations

| Station Number | Station name | Location | Drainage area (sq mi) | Period of record | Annual maximum: Date | Annual maximum: Gage height (feet) | Annual maximum: Discharge (cu ft per sec) |
|---|---|---|---|---|---|---|---|
| | | **Osage River basin--continued** | | | | | |
| 06914250 | South Fork Pottawatomie Creek tributary near Garnett, KS | Lat 38 deg 14 min 00 sec, long 95 deg 16 min 52 sec, in NW1/4 SE1/4 sec.7, T.21 S., R.20 E., Anderson County, Hydrologic Unit 10290101, above culvert on U.S. Highway 59, 3.1 mi south of Garnett. | 0.35 | 1963-84 | 3-19-84 | 11.76 | 190 |
| 06914500 | Pottawatomie Creek at Lane, KS | Lat 38 deg 26 min 38 sec, long 95 deg 05 min 02 sec, in SW1/4 NW1/4 sec.34, T.18 S., R.21 E., Franklin County, Hydrologic Unit 10290101, at downstream side of highway bridge at Lane. | 313 | 1929-32#,<br>1961-84 | 3-19-84 | 27.26 | 14,000 |
| 06915100 | Big Bull Creek at Paola, KS | Lat 38 deg 34 min 36 sec, long 94 deg 53 min 44 sec, in NW1/4 NE1/4 NW1/4 sec.17, T.17 S., R.23 E., Miami County, Hydrologic Unit 10290102, on downstream side of bridge on county highway (extension of Peoria Street), 0.5 mi west of Paola and 9.0 mi upstream from mouth. | 230 | 1970-84 | 4-01-84 | 16.31 | 7,000 |
| 06916700 | Middle Creek near Kincaid, KS | Lat 38 deg 03 min 24 sec, long 95 deg 11 min 15 sec, in SW1/4 NW1/4 SW1/4 sec.11, T.23 S., R.20 E., Anderson County, Hydrologic Unit 10290103, at downstream side of county highway bridge, 2.5 mi southwest of Kincaid. | 2.02 | 1957-84 | 4-21-84 | 14.75 | 770 |
| 06917100 | Marmaton River tributary near Bronson, KS | Lat 37 deg 54 min 20 sec, long 95 deg 05 min 43 sec, in NW1/4 NW1/4 sec.3, T.25 S., R.21 E., Allen County, Hydrologic Unit 10290104, at downstream side of culvert on U.S. Highway 54 and 1.5 mi northwest of Bronson. Prior to Oct. 1, 1967, at site 50 ft downstream at same datum. | 0.88 | 1957-84 | 3-19-84 | 12.45 | 125 |
| 06917400 | Marmaton River tributary near Fort Scott, KS | Lat 37 deg 47 min 26 sec, long 94 deg 47 min 47 sec, in SE1/4 SE1/4 SE1/4 sec.8, T.26 S., R.24 E., Bourbon County, Hydrologic Unit 10290104, at downstream side of county highway bridge, 6.0 mi southwest of Fort Scott. | 2.80 | 1957-84 | 10-21-83 | 13.75 | 940 |
| | | **Arkansas River basin** | | | | | |
| 07138600 | White Woman Creek tributary near Selkirk, KS | Lat 38 deg 31 min 30 sec, long 101 deg 37 min 16 sec, in SW1/4 SW1/4 sec.34, T.17 S., R.39 W., Greeley County, Hydrologic Unit 11030002, at downstream side of county highway bridge, 5.6 mi northwest of Selkirk. | 38.0<br>(7.59) | 1957-84 | 8-10-74<br>7-23-75<br>9-09-76<br>8-11-77<br>5-30-79<br>9-03-81<br>7-27-82<br>6-30-84 | 10.64<br>11.02<br>10.96<br>11.29<br>11.58<br>10.91<br>11.72<br>10.41 | b49<br>b92<br>b86<br>b140<br>b210<br>b80<br>b260<br>13 |
| 07139700 | Arkansas River tributary near Dodge City, KS | Lat 37 deg 42 min 52 sec, long 100 deg 00 min 53 sec, in SE1/4 NE1/4 sec.11, T.27 S., R.25 W., Ford County, Hydrologic Unit 11030004, at downstream side of culvert on U.S. Highway 283, 2.6 mi south of Dodge City. Prior to Mar. 1, 1959, above culvert 175 ft north of present site and at same datum. Records for 1957-58 discredited. | 8.66 | 1957-84 | 4-29-84 | 12.06 | 32 |

# Operated as a continuous-record streamflow-gaging station.
b Revised.
NOTE.--Figures of drainage area in parentheses show approximate contributing area included in total area.

Annual maximum discharge at high-flow stations

| Station Number | Station name | Location | Drainage area (sq mi) | Period of record | Annual maximum |  |  |
|---|---|---|---|---|---|---|---|
|  |  |  |  |  | Date | Gage height (feet) | Discharge (cu ft per sec) |
|  |  | Arkansas River basin--continued |  |  |  |  |  |
| 07140300 | Whitewoman Creek near Bellefont, KS | Lat 37 deg 55 min 26 sec, long 99 deg 38 min 31 sec, in SW1/4 NW1/4 sec.33, T.24 S., R.21 W., Hodgeman County, Hydrologic Unit 11030004, at downstream side of county highway bridge, 3.5 mi northeast of Bellefont. | 14.0 | 1957-84 | 4-30-84 | 10.41 | 13 |
| 07140600 | Pawnee River tributary near Kalvesta, KS | Lat 38 deg 03 min 42 sec, long 100 deg 21 min 00 sec, in SE1/4 SW1/4 SW1/4 sec.12, T.23 S., R.28 W., Finney County, Hydrologic Unit 11030005, at downstream side of bridge on U.S. Highway 156, 3.4 mi west of Kalvesta. | 6.89 | 1957-84 | 4-02-84 | 10.18 | 14 |
| 07141600 | Long Branch Creek near Ness City, KS | Lat 38 deg 27 min 01 sec, long 99 deg 52 min 50 sec, in NE1/4 NE1/4 sec.32, T.18 S., R.23 W., Ness County, Hydrologic Unit 11030007, below bridge on State Highway 96, 1.2 mi east of Ness City. | 28.0 | 1957-84 | 1984 | --- | 0 |
| 07141800 | Otter Creek near Rush Center, KS | Lat 38 deg 24 min 16 sec, long 99 deg 18 min 26 sec, in NW1/4 NW1/4 sec.15, T.19 S., R.18 W., Rush County, Hydrologic Unit 11030008, at downstream side of bridge on U.S. Highway 183, 4.3 mi south of Rush Center. Prior to Oct. 1, 1965, at site 100 ft downstream at present datum. | 17.0 | 1957-84 | 4-30-84 | 14.15 | 295 |
| 07142100 | Rattlesnake Creek tributary near Mullinville, KS | Lat 37 deg 35 min 11 sec, long 99 deg 25 min 17 sec, in SE1/4 SW1/4 sec.20, T.28 S., R.19 W., Kiowa County, Hydrologic Unit 11030009, at downstream end of culvert on U.S. Highway 54, 2.9 mi east of Mullinville. | 10.3 | 1957-84 | 6-27-57 | 13.32 | b1,150 |
|  |  |  |  |  | [illegible]-16-58 | 13.10 | b1,000 |
|  |  |  |  |  | 9-01-63 | b16.10 | 5,500 |
|  |  |  |  |  | 5-30-64 | 8.00 | b8 |
|  |  |  |  |  | 8-21-65 | 9.30 | b55 |
|  |  |  |  |  | 7-03-67 | 12.62 | b720 |
|  |  |  |  |  | 10-06-67 | 12.86 | b850 |
|  |  |  |  |  | 6-24-69 | 12.40 | b610 |
|  |  |  |  |  | 7-01-71 | 11.75 | b420 |
|  |  |  |  |  | 8-24-72 | 12.40 | b610 |
|  |  |  |  |  | 9-26-73 | 15.00 | b3,110 |
|  |  |  |  |  | 10-11-73 | 11.65 | b600 |
|  |  |  |  |  | 6-23-75 | 13.43 | b1,240 |
|  |  |  |  |  | 4-28-76 | 10.21 | b160 |
|  |  |  |  |  | 5-23-77 | 13.57 | b1,350 |
|  |  |  |  |  | 5-26-78 | 13.25 | b1,000 |
|  |  |  |  |  | 7-25-79 | 11.35 | b330 |
|  |  |  |  |  | 6-20-80 | 12.34 | b590 |
|  |  |  |  |  | 8-23-81 | 10.08 | b145 |
|  |  |  |  |  | 5-29-83 | 11.83 | b440 |
|  |  |  |  |  | 1984 | --- | 0 |
| 07142700 | Salt Creek near Partridge, KS | Lat 38 deg 02 min 22 sec, long 98 deg 05 min 13 sec, in SW1/4 NW1/4 sec.22, T.23 S., R.7 W., Reno County, Hydrologic Unit 11030010, at downstream side of county highway bridge, 5.0 mi north of Partridge. | 85.0<br>(72.0) | 1957-84 | 4-30-84 | 14.76 | 555 |
| 07142860 | Cow Creek near Claflin, KS | Lat 38 deg 31 min 20 sec, long 98 deg 35 min 00 sec, in NE1/4 NW1/4 sec.6, T.18 S., R.11 W., Barton County, Hydrologic Unit 11030011, at downstream side of bridge on State Highway 4, 2.5 mi west of Claflin, and at mile 97.8. | 43.0 | 1967-81#,<br>1982-84 | 4-30-84 | 7.51 | 197 |

# Operated as a continuous-record streamflow-gaging station.
b Revised.
NOTE.--Figures of drainage area in parentheses show approximate contributing area included in total area.

BEST COPY AVAILABLE

Annual maximum discharge at high-flow stations

| | | | | | Annual maximum | | |
|---|---|---|---|---|---|---|---|
| Station Number | Station name | Location | Drainage area (sq mi) | Period of record | Date | Gage height (feet) | Discharge (cu ft per sec) |
| | | Arkansas River basin--continued | | | | | |
| 07142900 | Blood Creek near Boyd, KS | Lat 38 deg 32 min 10 sec, long 98 deg 51 min 35 sec, in NE1/4 NW1/4 sec.34, T.17 S., R.14 W., Barton County, Hydrologic Unit 11030011, on downstream side of bridge on State Highway 4, 1.3 mi northeast of Boyd, 4.8 mi northwest of Hoisington, and 11.9 mi upstream from Cheyenne Bottoms. | 61.0 | 1957-62,<br>1963-80#,<br>1981-84 | 4-30-84 | 9.24 | 244 |
| 07143100 | Little Cheyenne Creek tributary near Claflin, KS | Lat 38 deg 27 min 25 sec, long 98 deg 32 min 08 sec, in NE1/4 SE1/4 sec.28, T.18 S., R.11 W., Barton County, Hydrologic Unit 11030011, at culvert on county highway, 4.7 mi south of Claflin. Published as "Cheyenne Creek tributary" 1957-70. | 1.48 | 1957-84 | 6-22-81<br>4-01-83<br>4-30-84 | c16.7<br>11.42<br>10.49 | b570<br>b69<br>58 |
| 07143600 | Little Arkansas River near Little River, KS | Lat 38 deg 24 min 50 sec, long 98 deg 01 min 00 sec, in NW1/4 SW1/4 sec.8 T.19 S., R.6 W., Rice County, Hydrologic Unit 11030012, at downstream side of county highway bridge, and 1.0 mi northeast of Little River. | 71.0 | 1960-71#,<br>1972-84 | 3-19-84 | 16.44 | 890 |
| 07144900 | South Fork Ninnescah River tributary near Pratt, KS | Lat 38 deg 40 min 30 sec, long 98 deg 43 min 23 sec, in NE1/4 NE1/4 sec.27, T.27 S., R.13 W., Pratt County, Hydrologic Unit 11030015, at downstream end of culvert on county highway, 2.4 mi northeast of Pratt. | 1.48 | 1957-84 | 6-13-84 | 14.69 | 810 |
| 07145300 | Clear Creek near Garden Plain, KS | Lat 37 deg 39 min 48 sec, long 97 deg 39 min 22 sec, in NE1/4 NW1/4 sec.33, T.27 S., R.3 W., Sedgwick County, Hydrologic Unit 11030016, at downstream side of bridge on county highway, 1.5 mi northeast of Garden Plain. | 5.03 | 1957-84 | 3-18-84 | 13.40 | 650 |
| 07145800 | Antelope Creek tributary near Dalton, KS | Lat 37 deg 16 min 34 sec, long 97 deg 17 min 01 sec, in SW1/4 SE1/4 sec.11, T.32 S., R.1 E., Sumner County, Hydrologic Unit 11030013, upstream from culvert on U.S. Highway 160, 0.8 mi northwest of Dalton. Published as "Avon Creek tributary" 1957-70. | 0.41 | 1957-84 | 6-09-84 | 14.51 | 205 |
| 07147020 | Whitewater River tributary near Towanda, KS | Lat 37 deg 51 min 03 sec, long 97 deg 03 min 37 sec, in NE1/4 NE1/4 sec.26, T.25 S., R.3 E., Butler County, Hydrologic Unit 11030017, at culvert on county highway, 5.0 mi northwest of Towanda. | 0.17 | 1963-84 | 6-11-84 | 12.76 | 73 |
| 07147990 | Cedar Creek tributary near Cambridge, KS | Lat 37 deg 15 min 19 sec, long 96 deg 37 min 33 sec, in NE1/4 NE1/4 SE1/4 sec.26, T.31 S., R.7 E., Cowley County, Hydrologic Unit 11060001, at downstream side of bridge on U.S. Highway 160, 0.5 mi upstream from Cedar Creek and 2.1 mi northeast of Cambridge. Published as "Grouse Creek tributary" 1961-63. | 2.41 | 1961-84 | 6-09-84 | 12.89 | 790 |
| 07148100 | Grouse Creek near Dexter, KS | Lat 37 deg 13 min 38 sec, long 96 deg 42 min 44 sec, in NW1/4 NW1/4 sec.31, T.32 S., R.7 E., Cowley County, Hydrologic Unit 11060001, on right bank at downstream side of county highway bridge, 3.2 mi north of Dexter. | 170 | 1960-84 | 6-09-84 | 21.63 | 8,000 |

# Operated as a continuous-record streamflow-gaging station.
b Revised.
c From floodmark.

### Annual maximum discharge at high-flow stations

| Station Number | Station name | Location | Drainage area (sq mi) | Period of record | Annual maximum: Date | Annual maximum: Gage height (feet) | Annual maximum: Discharge (cu ft per sec) |
|---|---|---|---|---|---|---|---|
| | | Arkansas River basin--continued | | | | | |
| 07151600 | Rush Creek near Harper, KS | Lat 37 deg 15 min 12 sec, long 98 deg 04 min 47 sec, in NE1/4 NE1/4 sec.21, T.32 S., R.7 W., Harper County, Hydrologic Unit 11060001, at downstream side of county highway bridge, 3.5 mi southwest of Harper. | 12.0 | 1957-84 | 4-08-84 | 14.26 | 914 |
| 07155900 | North Fork Cimarron River tributary near Elkhart, KS | Lat 37 deg 11 min 27 sec, long 101 deg 53 min 54 sec, in NW1/4 SW1/4 sec.9 T.33 S., R.42 W., Morton County, Hydrologic Unit 11040003, at downstream side of culvert on State Highway 27, 13.0 mi north of Elkhart. | 75.0<br>(10.0) | 1957-84 | 5-18-84 | 10.06 | 6.2 |
| 07156600 | Cimarron River tributary near Moscow, KS | Lat 37 deg 20 min 07 sec, long 101 deg 03 min 00 sec, in NW1/4 SW1/4 sec.20 T.31 S., R.34 W., Seward County, Hydrologic Unit 11040006, at downstream side of county highway bridge, 8.8 mi northeast of Moscow. | 13.0<br>(8.00) | 1957-84 | 7-16-84 | 12.35 | 650 |
| 07156700 | Cimarron River tributary near Satanta, KS | Lat 37 deg 18 min 15 sec, long 100 deg 55 min 36 sec, in NW1/4 NE1/4 sec.17, T.32 S., R.33 W., Seward County, Hydrologic Unit 11040006, at downstream side of bridge on county highway, 12.0 mi southeast Satanta. | 2.41 | 1957-84 | 7-16-84 | 10.57 | 68 |
| 07157100 | Crooked Creek near Copeland, KS | Lat 37 deg 33 min 55 sec, long 100 deg 33 min 15 sec, in SE1/4 SW1/4 sec.36, T.28 S., R.30 W., Gray County, Hydrologic Unit 11040007, at downstream side of culvert on U.S. Highway 56, 4.4 mi northeast of Copeland. Prior to Sept. 15, 1960, at downstream side of bridge, just downstream of present site and at same datum. | 44.0 | 1957-84 | 6-20-84 | 14.91 | 793 |
| 07157400 | Crooked Creek tributary at Meade, KS | Lat 37 deg 17 min 47 sec, long 100 deg 20 min 22 sec, in NE1/4 NW1/4 sec.2, T.32 S., R.28 W., Meade County, Hydrologic Unit 11040007, at downstream side of culvert on State Highway 23, 0.8 mi north of Meade. | 6.57 | 1957-84 | 7-16-84 | 12.33 | 280 |
| 07157700 | Kiger Creek near Ashland, KS | Lat 37 deg 11 min 36 sec, long 99 deg 54 min 48 sec, in SW1/4 SE1/4 sec.5, T.33 S., R.24 W., Clark County, Hydrologic Unit 11040008, above bridge on U.S. Highway 160, 8.2 mi west of Ashland. | 34.0 | 1957-84 | 5-14-84 | 12.22 | 270 |
| 07157900 | Cavalry Creek at Coldwater, KS | Lat 37 deg 16 min 00 sec, long 99 deg 20 min 40 sec, in NE1/4 NE1/4 sec.14, T.32 S., R.19 W., Comanche County, Hydrologic Unit 11040008, at downstream side of county highway bridge, 1.0 mi west of Coldwater, and at mile 18.3. | 39.0 | 1957-66,<br>1967-81#,<br>1982-84 | 7-29-84 | 3.45 | 190 |
| 07166200 | Sandy Creek near Yates Center, KS | Lat 37 deg 50 min 47 sec, long 95 deg 50 min 07 sec, in SE1/4 NE1/4 sec.26, T.25 S., R.14 E., Woodson County, Hydrologic Unit 11070101, at downstream side of bridge on U.S. Highway 54, 6.0 mi southwest of Yates Center. | 6.80 | 1957-84 | 6-09-84 | 15.86 | 590 |

# Operated as a continuous-record streamflow-gaging station.
NOTE.--Figures of drainage area in parentheses show approximate contributing area included in total area.

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Annual maximum discharge at high-flow stations

| Station Number | Station name | Location | Drainage area (sq mi) | Period of record | Annual maximum Date | Annual maximum Gage height (feet) | Annual maximum Discharge (cu ft per sec) |
|---|---|---|---|---|---|---|---|
| | | Arkansas River basin--continued | | | | | |
| 07170800 | Mud Creek near Mound Valley, KS | Lat 37 deg 11 min 38 sec, long 95 deg 26 min 52 sec, in NW1/4 NW1/4 sec.9, T.33 S., R.18 E., Labette County, Hydrologic Unit 11070103, at downstream side of bridge on State Highway 96, 2.6 mi southeast of Mound Valley. | 4.22 | 1957-84 | 5-27-84 | 19.26 | 4,800 |
| 07171700 | Spring Branch near Cedar Vale, KS | Lat 37 deg 06 min 48 sec, long 96 deg 27 min 29 sec, in NW1/4 NE1/4 sec.7, T.34 S., R.9 E., Chautauqua County, Hydrologic Unit 11070106, at downstream side of bridge on U.S. Highway 166, 2.3 mi northeast of Cedar Vale. Published as "Spring Creek tributary" 1957-60, "Spring Creek" 1961-65. | 3.10 | 1957-84 | 3-23-84 | 13.17 | 1,400 |
| 07171800 | Cedar Creek tributary near Hooser, KS | Lat 37 deg 06 min 27 sec, long 96 deg 34 min 27 sec, in SW1/4 NE1/4 sec.7, T.34 S., R.8 E., Cowley County, Hydrologic Unit 11070106, above culvert on U.S. Highway 166, 3.9 mi southeast of Hooser. | 0.56 | 1957-84 | 4-18-84 | 11.14 | 95 |
| 07180300 | Spring Creek tributary near Florence, KS | Lat 38 deg 11 min 00 sec, long 96 deg 56 min 49 sec, in NW1/4 SW1/4 NW1/4 sec.32, T.21 S., R.5 E., Marion County, Hydrologic Unit 11070202, above culvert on U.S. Highway 77, 4.1 mi southeast of Florence. | 0.55 | 1957-84 | 3-19-84 | 12.84 | 132 |
| 07181500 | Middle Creek near Elmdale, KS | Lat 38 deg 23 min 36 sec, long 96 deg 43 min 04 sec, in SE1/4 SW1/4 sec.13 T.19 S., R.6 E., Chase County, Hydrologic Unit 11070203, at downstream side of county highway bridge, 4.0 mi northwest of Elmdale and at mile 8.2. | 92.0 | 1939-50#,<br>1960-84 | 1984 | 17.41 | 9,000 |
| 07182600 | North Big Creek near Burlington, KS | Lat 38 deg 06 min 37 sec, long 95 deg 45 min 26 sec, in NW1/4 NW1/4 sec.27, T.22 S., R.15 E., Coffey County, Hydrologic Unit 11070204, at downstream side of county highway bridge, 5.9 mi southwest of Burlington. | 46.0 | 1957-84 | 6-09-84 | 19.75 | 3,700 |
| 07183800 | Limestone Creek near Beulah, KS | Lat 37 deg 24 min 12 sec, long 94 deg 53 min 16 sec, in NE1/4 SE1/4 sec.25, T.30 S., R.23 E., Crawford County, Hydrologic Unit 11070205, at downstream side of county highway bridge, 4.0 mi southwest of Beulah. | 12.0 | 1957-84 | 3-19-84 | 18.06 | 2,900 |
| 07184500 | Labette Creek near Oswego, KS | Lat 37 deg 11 min 30 sec, long 95 deg 11 min 30 sec, in NW1/4 NW1/4 sec.11 T.33 S., R.20 E., Labette County, Hydrologic Unit 11070205, at downstream side of bridge on U.S. Highway 96, 2.0 mi upstream from St. Louis - San Francisco Railway bridge, 5.0 mi northwest of Oswego and at mile 18.8. | 211 | 1939-45#,<br>1961-84 | 4-23-84 | 16.10 | 6,400 |

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# Operated as a continuous-record streamflow-gaging station.

## Low-flow stations

Measurements of streamflow in the area covered by this report made at low-flow stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

### Discharge measurements made at low-flow stations during water year 1986

| Station Number | Station name | Location | Drainage area (sq mi) | Period of record | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge (cu ft per sec) |
| | | Arkansas River basin | | | | |
| 07142570 | Rattlesnake Creek above Little Salt Marsh near Hudson, KS | Lat 38 deg 05 min 13 sec, long 98 deg 34 min 52 sec, in SW1/4 SW1/4 SW1/4 sec.31, T.22 S., R.11 W., Stafford County, Hydrologic Unit 11030009, at bridge on county highway, 4.0 mi southeast of Hudson, and at mile 30.5. | 1,032 | 1971-76,<br>1978,<br>1984 | 9-26-84 | 0.55 |
| 07142650 | Peace Creek near Sylvia, KS | Lat 38 deg 04 min 34 sec, long 98 deg 26 min 18 sec, in SW1/4 NW1/4 SW1/4 sec.4, T.23 S., R.10 W., Reno County, Hydrologic Unit 11030010, at bridge on county highway, 8.5 mi northeast of Sylvia, and at mile 17.2. | 92.0 | 1971-84 | 12-13-83<br>9-26-84 | 0.49<br>0.01 |
| 07142670 | Peace Creek near Sterling, KS | Lat 38 deg 08 min 43 sec, long 98 deg 15 min 13 sec, in SW1/4 SW1/4 SW1/4 sec.7, T.22 S., R.8 W., Reno County, Hydrologic Unit 11030010, at bridge on county highway, 4.5 mi southeast of Sterling, and at mile 2.8. | 136 | 1971-84 | 12-13-83<br>9-26-84 | 2.5<br>0.86 |
| 07142740 | Salt Creek near Hutchinson, KS | Lat 38 deg 04 min 23 sec, long 98 deg 02 min 11 sec, in SW1/4 SE1/4 SE1/4 sec.1, T.23 S., R.7 W., Reno County, Hydrologic Unit 11030010, at bridge on county road, 6.0 mi west of Hutchinson, and at mile 6.5. | 103 | 1971-84 | 12-13-83<br>9-26-84 | 4.3<br>2.5 |
| 07144590 | North Fork Ninnescah River near Sylvia, KS | Lat 37 deg 55 min 59 sec, long 98 deg 26 min 36 sec, in NW1/4 NW1/4 NW1/4 sec.27, T.24 S., R.10 W., Reno County, Hydrologic Unit 11030014, at county bridge, 1.0 mi south of Sylvia. | 208 | 1968-84 | 12-14-83<br>9-25-84 | 16<br>4.4 |
| 07144620 | North Fork Ninnescah River above Silver Creek near Arlington, KS | Lat 37 deg 51 min 09 sec, long 98 deg 09 min 30 sec, in NW1/4 NW1/4 NW1/4 sec.25, T.25 S., R.8 W., Reno County, Hydrologic Unit 11030014, at bridge on county highway, 3.0 mi southeast of Arlington, and at mile 44.7. | 504 | 1971-84 | 12-14-83<br>9-25-84 | 46<br>13 |
| 07144640 | Silver Creek near Langdon, KS | Lat 37 deg 47 min 54 sec, long 98 deg 19 min 59 sec, in SW1/4 SW1/4 NW1/4 sec.8, T.26 S., R.9 W., Reno County, Hydrologic Unit 11030014, at bridge on county highway, 4.0 mi southeast of Langdon, and at mile 15.7. | 103 | 1971-84 | 12-15-83<br>9-25-84 | 4.8<br>0.55 |
| 07144890 | South Fork Ninnescah River at Pratt, KS | Lat 37 deg 38 min 03 sec, long 98 deg 44 min 15 sec, in NW1/4 SW1/4 SW1/4 sec.3, T.28 S., R.13 W., Pratt County, Hydrologic Unit 11030015, at bridge on U.S. Highway 281, at Pratt, and at mile 136.4. | 97.1 | 1971-78,<br>1984 | 9-24-84 | 7.1 |
| 07145130 | South Fork Ninnescah River near Calista, KS | Lat 37 deg 38 min 45 sec, long 98 deg 17 min 12 sec, in SW1/4 SE1/4 SE1/4 sec.34, T.27 S., R.9 W., Kingman County, Hydrologic Unit 11030015, at bridge on U.S. Highway 54, 0.5 mi northeast of Calista, and at mile 103.2. | 374 | 1971-76,<br>1978-84 | 12-16-83<br>9-25-84 | 108<br>69 |

## Flood Hydrograph stations

The following table contains stage and discharge for indicated times at flood hydrograph stations. Records of stage above the elevation of the base discharge are obtained from a water-stage recorder. The base is selected so that an average of about three floods a year can be presented. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak discharge or by current meter. The maximum discharge for each water year is given although it may not be above the base.

## KANSAS RIVER BASIN

### 06870300 GYPSUM CREEK NEAR GYPSUM, KS

LOCATION.--Lat 38 deg 39 min 11 sec, long 97 deg 25 min 10 sec, in SE1/4 SE1/4 SW1/4 sec.15, T.16 S., R.1 W., Saline County, 3.5 mi south of Gypsum, and 22.7 mi upstream from mouth. DRAINAGE AREA.--120 sq mi, approximately. PERIOD OF RECORD.--October 1954 to September 1971, continuous record. October 1971 to current year, flood hydrograph record.

GAGE HEIGHT, IN FEET, AND DISCHARGE, IN CUBIC FEET PER SECOND, AT INDICATED TIME, 1984 WATER YEAR

| DATE | HOUR | GAGE HEIGHT | DIS-CHARGE |
|---|---|---|---|
| MAR 18 | 2100 | 12.70 | 584 |
| | 2200 | 13.65 | 707 |
| | 2300 | 14.29 | 806 |
| | 2400 | 14.73 | 881 |
| MAR 19 | 0200 | 15.63 | 1080 |
| | 0400 | 16.40 | 1360 |
| | 0600 | 16.95 | 1580 |
| | 0800 | 17.23 | 1740 |
| | 1000 | 17.36 | 1820 |
| | 1200 | 17.00 | 1600 |
| | 1400 | 16.14 | 1260 |
| | 1600 | 14.83 | 899 |
| | 1800 | 13.08 | 630 |
| MAR 21 | 0800 | 12.53 | 564 |
| | 0900 | 13.58 | 697 |
| | 1000 | 14.28 | 805 |
| | 1100 | 14.69 | 874 |
| | 1200 | 15.02 | 934 |
| | 1300 | 15.23 | 976 |
| | 1400 | 15.41 | 1020 |
| | 1500 | 15.50 | 1040 |
| | 1600 | 15.56 | 1060 |
| | 1700 | 15.57 | 1060 |
| | 1800 | 15.52 | 1050 |
| | 1900 | 15.38 | 1010 |
| | 2000 | 15.17 | 964 |
| | 2100 | 14.82 | 898 |
| | 2200 | 14.32 | 811 |
| MAR 21 | 2300 | 13.72 | 717 |
| | 2400 | 13.08 | 630 |
| MAR 22 | 0100 | 12.40 | 550 |
| MAR 24 | 0600 | 12.76 | 591 |
| | 0700 | 13.40 | 672 |
| | 0800 | 13.81 | 730 |
| | 0900 | 14.18 | 789 |
| | 1000 | 14.41 | 826 |
| | 1200 | 14.66 | 869 |
| | 1400 | 14.72 | 880 |
| | 1600 | 14.50 | 640 |
| | 1800 | 13.98 | 757 |
| | 1900 | 13.56 | 694 |
| | 2000 | 13.06 | 627 |
| | 2100 | 12.55 | 566 |
| | 2200 | 12.06 | 516 |
| APR 27 | 0000 | 12.20 | 530 |
| | 0100 | 13.75 | 721 |
| | 0200 | 14.50 | 840 |
| | 0300 | 15.05 | 940 |
| | 0400 | 15.60 | 1070 |
| | 0600 | 16.45 | 1380 |
| | 0800 | 17.05 | 1630 |
| | 1000 | 17.55 | 1960 |
| | 1100 | 17.67 | 2070 |
| | 1200 | 17.62 | 2020 |
| | 1400 | 17.20 | 1720 |
| APR 27 | 1600 | 16.50 | 1400 |
| | 1800 | 15.55 | 1060 |
| | 2000 | 13.90 | 744 |
| JUN 14 | 2300 | 12.23 | 533 |
| | 2400 | 13.35 | 665 |
| JUN 15 | 0100 | 14.00 | 760 |
| | 0200 | 14.40 | 824 |
| | 0300 | 14.62 | 862 |
| | 0400 | 14.68 | 872 |
| | 0500 | 14.55 | 849 |
| | 0600 | 14.05 | 768 |
| | 0700 | 13.20 | 644 |
| | 0800 | 12.10 | 520 |
| JUN 20 | 1400 | 12.71 | 585 |
| | 1500 | 13.86 | 738 |
| | 1600 | 14.60 | 858 |
| | 1700 | 14.92 | 916 |
| | 1800 | 15.12 | 954 |
| | 1900 | 15.22 | 974 |
| | 2000 | 15.26 | 982 |
| | 2100 | 15.21 | 972 |
| | 2200 | 15.01 | 932 |
| | 2300 | 14.60 | 858 |
| | 2400 | 14.02 | 763 |
| JUN 21 | 0100 | 13.25 | 651 |
| | 0200 | 12.34 | 544 |

Peak discharges above base of 650 cu ft per sec and maximum (*):

| Date | Time | Discharge (cu ft per sec) | Gage height (ft) |
|---|---|---|---|
| Mar. 19 | 1000 | 1,820 | 17.36 |
| Mar. 21 | 1700 | 1,060 | 15.57 |
| Mar. 24 | 1400 | 880 | 14.72 |
| Apr. 27 | 1100 | *2,070 | 17.67 |
| Apr. 29 | unknown | 1,500 | 16.75 |
| June 7 | unknown | 728 | 13.80 |
| June 9 | unknown | 650 | 13.24 |
| June 15 | 0400 | 872 | 14.68 |
| June 20 | 2000 | 982 | 15.26 |

## ARKANSAS RIVER BASIN

### 07139000 ARKANSAS RIVER AT GARDEN CITY, KS

LOCATION.--Lat 37 deg 57 min 21 sec, long 100 deg 52 min 37 sec, in NW1/4 SE1/4 NW1/4 sec.19, T.24 S., R.32 W., Finney County, at downstream side of bridge on U.S. Highway 83, 0.5 mi south of Garden City, and at mile, 1,024.2. DRAINAGE AREA.--27,071 sq mi, of which about 2,368 sq mi is probably noncontributing. PERIOD OF RECORD.--June 1922 to June 1970, continuous record. July 1970 to current year, flood hydrograph record. CURRENT YEAR MAXIMUM.--Discharge 320 cu ft per sec, gage height, 5.73 ft Feb. 4.

Peak discharge above base of 600 cu ft per sec.--No peak above base.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### BIG NEMAHA RIVER BASIN

06814000 TURKEY C NR SENECA, KS (LAT 39 56 52N LONG 096 06 30W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 12... | 10:50 | 12 | 605 | 8.7 | 10.0 |
| NOV | | | | | |
| 22... | 08:00 | 11 | 560 | 8.2 | 6.0 |
| MAR 1984 | | | | | |
| 29... | 08:50 | 312 | 620 | 8.1 | 3.5 |
| JUL | | | | | |
| 17... | 11:40 | 60 | 625 | 8.0 | 24.5 |

### KANSAS RIVER BASIN

06853500 REPUBLICAN R NR HARDY, NE (LAT 39 59 33N LONG 097 55 53W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 16... | 09:50 | 235 | 715 | 8.3 | 7.0 |
| DEC | | | | | |
| 21... | 11:00 | 156 | 985 | 8.0 | 0.0 |
| FEB 1984 | | | | | |
| 08... | 15:30 | 362 | 782 | 8.3 | 5.0 |
| MAR | | | | | |
| 28... | 14:20 | 735 | 665 | 8.0 | 7.0 |
| MAY | | | | | |
| 09... | 15:40 | 1400 | 685 | 7.9 | 15.0 |
| JUN | | | | | |
| 20... | 14:15 | 423 | 790 | 8.4 | 27.0 |

06854000 WHITE ROCK C AT LOVEWELL, KS (LAT 39 53 10N LONG 098 01 20W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 16... | 12:35 | 0.02 | 895 | 7.6 | 7.0 |
| FEB 1984 | | | | | |
| 08... | 12:00 | 0.1 | 1090 | 7.6 | 2.5 |
| MAY | | | | | |
| 09... | 13:00 | 270 | 600 | 8.0 | 12.5 |
| JUN | | | | | |
| 21... | 14:00 | 227 | 596 | 8.1 | 24.0 |

06855800 BUFFALO C NR JAMESTOWN, KS (LAT 39 36 55N LONG 097 51 20W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 17... | 11:00 | 2.9 | 1360 | 8.2 | 5.5 |
| DEC | | | | | |
| 22... | 13:40 | 9.7 | 2060 | 7.3 | 0.0 |
| FEB 1984 | | | | | |
| 09... | 09:30 | 51 | 1250 | 8.0 | 2.0 |
| MAR | | | | | |
| 29... | 09:10 | 122 | 1540 | 8.0 | 4.0 |
| MAY | | | | | |
| 09... | 17:50 | 272 | 1270 | 7.8 | 15.5 |
| JUN | | | | | |
| 20... | 09:20 | 86 | 1210 | 8.2 | 24.5 |

06856000 REPUBLICAN R AT CONCORDIA, KS (LAT 39 35 25N LONG 097 39 32W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 17... | 14:10 | 334 | 955 | 8.4 | 8.5 |
| DEC | | | | | |
| 22... | 11:00 | 259 | 1050 | 8.4 | 0.0 |
| FEB 1984 | | | | | |
| 07... | 15:40 | 702 | 760 | 8.2 | 2.0 |
| MAR | | | | | |
| 29... | 14:20 | 1010 | 905 | 7.9 | 8.0 |
| MAY | | | | | |
| 09... | 16:30 | 2160 | 905 | 7.9 | 14.5 |
| JUN | | | | | |
| 19... | 15:30 | 1130 | 950 | 8.3 | 26.0 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| KANSAS RIVER BASIN | | | | | |
| 06856100 WEST C NR TALMO, KS (LAT 39 40 00N LONG 097 36 48W) | | | | | |
| JUN 1984 | | | | | |
| 19... | 18:10 | 17 | 765 | 8.0 | 25.0 |
| 06857100 REPUBLICAN R BL MILFORD DAM, KS (LAT 39 04 15N LONG 096 52 00W) | | | | | |
| NOV 1983 | | | | | |
| 18... | 10:20 | 356 | 655 | 8.6 | 11.0 |
| FEB 1984 | | | | | |
| 10... | 09:50 | 1010 | 720 | 8.5 | 4.0 |
| MAR | | | | | |
| 30... | 09:35 | 2450 | 648 | 8.2 | 5.0 |
| MAY | | | | | |
| 10... | 13:00 | 4070 | 638 | 8.0 | 13.0 |
| JUN | | | | | |
| 20... | 14:50 | 1600 | 645 | -- | 23.0 |
| 06864500 SMOKY HILL R AT ELLSWORTH, KS (LAT 38 43 36N LONG 098 14 00W) | | | | | |
| NOV 1983 | | | | | |
| 14... | 14:30 | 13 | 1550 | 8.2 | 8.5 |
| 06865500 SMOKY HILL R NR LANGLEY, KS (LAT 38 36 38N LONG 097 57 04W) | | | | | |
| NOV 1983 | | | | | |
| 17... | 12:00 | 13 | 1450 | 7.9 | 15.0 |
| JAN 1984 | | | | | |
| 05... | 11:55 | 12 | 1850 | 7.6 | 5.0 |
| FEB | | | | | |
| 09... | 10:45 | 15 | 1600 | 7.6 | 5.0 |
| MAR | | | | | |
| 29... | 09:50 | 5.2 | 850 | 7.9 | 9.5 |
| MAY | | | | | |
| 03... | 09:55 | 182 | 1220 | 8.2 | 13.5 |
| JUN | | | | | |
| 14... | 10:10 | 131 | 1120 | 8.0 | 25.0 |
| 06866500 SMOKY HILL R NR MENTOR, KS (LAT 38 47 54N LONG 097 34 28W) | | | | | |
| NOV 1983 | | | | | |
| 16... | 10:40 | 32 | 1140 | 7.9 | 8.0 |
| JAN 1984 | | | | | |
| 05... | 15:10 | 32 | 1260 | 7.6 | 0.0 |
| FEB | | | | | |
| 07... | 17:15 | 69 | 1020 | 7.9 | 5.0 |
| MAR | | | | | |
| 29... | 14:45 | 149 | 680 | 7.7 | 8.5 |
| MAY | | | | | |
| 03... | 17:00 | 646 | 610 | 7.9 | 13.5 |
| JUN | | | | | |
| 16... | 17:20 | 218 | 1000 | 8.0 | 27.5 |
| 06868200 SALINE R AT WILSON DAM, KS (LAT 38 58 35N LONG 098 29 20W) | | | | | |
| NOV 1983 | | | | | |
| 15... | 09:40 | 12 | 3600 | 8.4 | 10.5 |
| 06870200 SMOKY HILL R AT NEW CAMBRIA, KS (LAT 38 51 49N LONG 097 28 58W) | | | | | |
| NOV 1983 | | | | | |
| 16... | 12:40 | 77 | 1700 | 8.1 | 7.5 |
| JAN 1984 | | | | | |
| 03... | 16:00 | 80 | 2300 | 7.5 | 0.5 |
| FEB | | | | | |
| 07... | 14:15 | 193 | 1100 | 7.7 | 3.0 |
| MAR | | | | | |
| 29... | 16:40 | 387 | 1080 | 7.8 | 8.0 |
| MAY | | | | | |
| 07... | 19:25 | 5320 | 410 | 8.1 | 13.5 |
| JUN | | | | | |
| 01... | 13:35 | 348 | 1400 | 7.6 | 28.0 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

KANSAS RIVER BASIN

06875900 SOLOMON R NR GLEN ELDER, KS (LAT 39 28 27N LONG 098 16 58W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 15... | 11:15 | 22 | 1100 | 7.8 | 8.0 |
| JAN 1984 | | | | | |
| 04... | 11:15 | 28 | 1200 | 7.9 | 2.0 |
| FEB | | | | | |
| 08... | 10:30 | 55 | 950 | 7.7 | 1.0 |
| MAY | | | | | |
| 02... | 12:20 | 590 | 880 | 8.1 | 12.0 |
| JUN | | | | | |
| 13... | 12:30 | 1040 | 800 | 8.0 | 24.0 |

06876700 SALT C NR ADA, KS (LAT 39 08 30N LONG 097 50 10W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| JAN 1984 | | | | | |
| 04... | 15:15 | 15 | 3500 | 7.7 | 0.0 |
| FEB | | | | | |
| 08... | 13:10 | 24 | 2400 | 7.8 | 3.5 |
| MAR | | | | | |
| 28... | 15:15 | 50 | 2000 | 7.9 | 6.5 |
| MAY | | | | | |
| 02... | 16:35 | 702 | 800 | 8.0 | 15.0 |
| JUN | | | | | |
| 13... | 16:30 | 28 | 2100 | 7.8 | 27.0 |

06878000 CHAPMAN C NR CHAPMAN, KS (LAT 39 01 52N LONG 097 02 24W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 15... | 09:35 | 19 | 1060 | 8.0 | 7.0 |
| DEC | | | | | |
| 20... | 09:40 | 19 | 1320 | 7.9 | 0.0 |
| FEB 1984 | | | | | |
| 07... | 09:35 | 50 | 820 | 7.9 | 0.0 |
| APR | | | | | |
| 05... | 12:55 | 1310 | 321 | 7.7 | 9.0 |
| MAY | | | | | |
| 16... | 10:00 | 110 | 580 | 7.8 | 13.5 |

06879100 KANSAS R AT FORT RILEY, KS (LAT 39 03 09N LONG 096 46 33W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 29... | 10:45 | 1610 | 1120 | 8.3 | 7.5 |
| FEB 1984 | | | | | |
| 22... | 12:25 | 1190 | 1230 | 8.1 | 11.5 |
| APR | | | | | |
| 06... | 11:10 | 14000 | 388 | 7.8 | 7.5 |
| MAY | | | | | |
| 15... | 10:20 | 6690 | 954 | 8.0 | 14.5 |

06882510 BIG BLUE R AT MARYSVILLE, KS (LAT 39 50 32N LONG 096 39 39W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| JUN 1984 | | | | | |
| 15... | 14:10 | 39600 | 108 | -- | 24.5 |
| 19... | 12:10 | 16200 | 145 | -- | 24.5 |
| JUL | | | | | |
| 17... | 08:25 | 837 | 528 | 8.0 | 26.0 |

06884200 MILL C AT WASHINGTON, KS (LAT 39 45 50N LONG 097 02 20W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| DEC 1983 | | | | | |
| 01... | 10:00 | 17 | 720 | 7.1 | 0.5 |
| MAR 1984 | | | | | |
| 27... | 10:10 | 303 | 552 | 7.5 | 7.5 |
| MAY | | | | | |
| 08... | 12:25 | 224 | 745 | 7.8 | 11.5 |
| JUN | | | | | |
| 20... | 07:50 | 183 | 700 | -- | 22.5 |
| JUL | | | | | |
| 16... | 18:40 | 46 | 800 | 7.9 | 28.0 |

BEST COPY AVAILABLE

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### KANSAS RIVER BASIN

06884700 BIG BLUE R AT BLUE RAPIDS, KS (LAT 39 41 20N LONG 096 38 30W)

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 20... | 11:20 | 1160 | 386 | 7.8 | 14.5 |

06885500 BLACK VERMILLION R NR FRANKFORT, KS (LAT 39 41 03N LONG 096 26 15W)

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 20... | 15:45 | 27 | 541 | 7.9 | 13.0 |
| NOV | | | | | |
| 30... | 11:45 | 98 | 635 | 8.2 | 3.5 |
| FEB 1984 | | | | | |
| 21... | 10:25 | 5.5 | 665 | 8.0 | 3.0 |
| MAR | | | | | |
| 26... | 15:50 | 1430 | 320 | 7.3 | 7.5 |
| MAY | | | | | |
| 07... | 13:00 | 238 | 665 | 8.0 | 12.5 |
| JUN | | | | | |
| 12... | 13:20 | 759 | 300 | 7.3 | 21.0 |
| JUL | | | | | |
| 16... | 12:05 | 55 | 635 | 7.9 | 25.5 |

06888350 KANSAS R NR BELVUE, KS (LAT 39 11 15N LONG 096 08 50W)

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 20... | 11:30 | 4360 | 705 | 8.2 | 13.5 |
| NOV | | | | | |
| 30... | 14:35 | 5050 | 645 | 8.3 | 3.0 |
| JAN 1984 | | | | | |
| 05... | 14:15 | 1880 | 965 | 7.5 | 0.0 |
| FEB | | | | | |
| 14... | 13:05 | 10300 | 612 | 8.3 | 5.0 |
| MAR | | | | | |
| 28... | 12:20 | 16400 | 530 | 7.8 | 3.0 |
| APR | | | | | |
| 30... | 13:55 | 44700 | 291 | 7.8 | 11.5 |
| JUN | | | | | |
| 25... | 11:05 | 11200 | 610 | 8.0 | 25.0 |
| AUG | | | | | |
| 06... | 11:15 | 3030 | 1210 | 8.7 | 28.5 |
| SEP | | | | | |
| 12... | 10:45 | 1300 | 1150 | 8.6 | 24.0 |

06888400 KANSAS R AT MAPLE HILL, KS (LAT 39 07 14N LONG 096 01 29W)

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| JUL 1984 | | | | | |
| 05... | 13:50 | 22000 | 320 | 7.9 | 26.0 |

06888500 MILL C NR PAXICO, KS (LAT 39 03 44N LONG 096 10 52W)

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| FEB 1984 | | | | | |
| 13... | 14:55 | 83 | 622 | 8.2 | 8.0 |
| JUN | | | | | |
| 25... | 14:00 | 260 | 565 | 8.1 | 22.5 |
| AUG | | | | | |
| 03... | 09:55 | 29 | 710 | 7.9 | 27.0 |
| SEP | | | | | |
| 12... | 13:45 | 11 | 595 | 8.3 | 27.0 |

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WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

KANSAS RIVER BASIN

06889000 KANSAS R AT TOPEKA, KS (LAT 39 04 00N LONG 095 38 58W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 14... | 14:55 | 2500 | 815 | 8.2 | 13.5 |
| NOV | | | | | |
| 07... | 10:30 | 1950 | 800 | 8.5 | 15.0 |
| 30... | 10:55 | 5020 | 695 | 8.3 | 2.0 |
| JAN 1984 | | | | | |
| 04... | 14:20 | 1880 | 1000 | 7.5 | 0.5 |
| FEB | | | | | |
| 18... | 12:15 | 10300 | 535 | 8.0 | 5.0 |
| MAR | | | | | |
| 06... | 10:40 | 3940 | 612 | 8.2 | 5.0 |
| 29... | 14:50 | 17500 | 493 | -- | 4.5 |
| APR | | | | | |
| 17... | 10:30 | 15200 | 510 | 8.2 | 11.0 |
| MAY | | | | | |
| 01... | 11:30 | 35900 | 399 | -- | 12.5 |
| 29... | 14:00 | 24300 | 270 | 8.3 | 18.5 |
| AUG | | | | | |
| 08... | 10:50 | 3170 | 1000 | 8.5 | 27.5 |
| SEP | | | | | |
| 11... | 11:10 | 1230 | 815 | 8.0 | 23.0 |

06889100 SOLDIER C NR GOFF, KS (LAT 39 37 27N LONG 095 57 57W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 22... | 10:10 | 0.08 | 760 | 7.8 | 7.5 |
| MAR 1984 | | | | | |
| 28... | 17:25 | 4.2 | 240 | 7.7 | 3.5 |
| JUN | | | | | |
| 19... | 11:50 | 0.42 | 430 | 7.8 | 21.0 |
| JUL | | | | | |
| 17... | 14:20 | 0.13 | 342 | 7.8 | 24.5 |

06889120 SOLDIER C NR BANCROFT, KS (LAT 39 35 42N LONG 095 58 17W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 12... | 16:20 | 0.22 | 510 | 8.6 | 12.0 |
| NOV | | | | | |
| 22... | 11:55 | 0.83 | 760 | 8.0 | 8.0 |
| MAR 1984 | | | | | |
| 28... | 15:45 | 31 | 285 | 7.7 | 3.5 |
| JUN | | | | | |
| 19... | 14:30 | 3.7 | 638 | 7.8 | 22.0 |
| JUL | | | | | |
| 17... | 16:20 | 1.0 | 540 | 7.8 | 29.0 |

06889140 SOLDIER C NR SOLDIER, KS (LAT 39 33 57N LONG 095 57 45W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 13... | 09:50 | 0.66 | 570 | 7.9 | 9.0 |
| NOV | | | | | |
| 21... | 15:30 | 1.5 | 835 | 7.9 | 7.5 |
| MAR 1984 | | | | | |
| 28... | 13:50 | 61 | 300 | 7.8 | 3.5 |
| JUN | | | | | |
| 19... | 16:45 | 7.2 | 680 | 7.9 | 22.0 |
| JUL | | | | | |
| 17... | 17:40 | 2.6 | 528 | 8.1 | 28.0 |

06889160 SOLDIER C NR CIRCLEVILLE, KS (LAT 39 27 47N LONG 095 57 00W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 13... | 13:05 | 2.7 | 670 | 8.0 | 10.0 |
| NOV | | | | | |
| 21... | 13:40 | 3.5 | 855 | 8.0 | 7.0 |
| MAR 1984 | | | | | |
| 28... | 11:30 | 102 | 505 | 7.9 | 4.5 |
| JUL | | | | | |
| 17... | 18:40 | 8.7 | 608 | 7.8 | 25.5 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

KANSAS RIVER BASIN

06889200 SOLDIER C NR DELIA, KS (LAT 39 12 08N LONG 095 52 25W)

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 13... | 15:40 | 12 | 650 | 8.2 | 12.0 |
| NOV | | | | | |
| 21... | 11:10 | 14 | 860 | 8.2 | 6.0 |
| MAR 1984 | | | | | |
| 30... | 12:35 | 194 | 534 | 8.1 | 8.5 |
| JUN | | | | | |
| 21... | 13:30 | 3070 | 232 | 7.8 | 22.0 |
| AUG | | | | | |
| 29... | 13:00 | 5.5 | 598 | 8.0 | 26.5 |

06889500 SOLDIER C NR TOPEKA, KS (LAT 39 06 00N LONG 095 43 27W)

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 14... | 10:15 | 20 | 625 | 8.0 | 12.0 |
| NOV | | | | | |
| 29... | 14:50 | 252 | 340 | 7.9 | 2.0 |
| MAR 1984 | | | | | |
| 26... | 13:25 | 1600 | 275 | 7.2 | 5.5 |
| JUN | | | | | |
| 22... | 10:50 | 6630 | 209 | 7.8 | 26.5 |
| AUG | | | | | |
| 29... | 09:25 | 13 | 551 | 7.9 | 25.5 |

06890100 DELAWARE R NR MUSCOTAH, KS (LAT 39 31 17N LONG 095 31 57W)

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 11... | 17:10 | 66 | 540 | 7.7 | 16.5 |
| DEC | | | | | |
| 01... | 10:40 | 66 | 460 | 7.5 | 0.5 |
| MAR 1984 | | | | | |
| 29... | 13:40 | 634 | 470 | 8.0 | 7.0 |
| JUN | | | | | |
| 29... | 12:50 | 3230 | 270 | 7.4 | 21.0 |
| SEP | | | | | |
| 13... | 14:00 | 16 | 550 | 8.1 | 25.5 |

06890900 DELAWARE R BL PERRY DAM, KS (LAT 39 06 51N LONG 095 25 33W)

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| FEB 1984 | | | | | |
| 22... | 11:35 | 341 | 362 | 7.6 | 4.5 |
| MAR | | | | | |
| 12... | 12:40 | 376 | 362 | 8.5 | 4.0 |

06891000 KANSAS R AT LECOMPTON, KS (LAT 39 03 07N LONG 095 23 15W)

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 07... | 14:10 | 2370 | 868 | 8.6 | 15.0 |
| FEB 1984 | | | | | |
| 08... | 12:40 | 11000 | 761 | 7.7 | 3.0 |
| MAR | | | | | |
| 13... | 10:55 | 4020 | 728 | 8.4 | 5.0 |
| APR | | | | | |
| 23... | 13:45 | 25500 | 387 | 7.7 | 10.5 |
| JUN | | | | | |
| 04... | 10:20 | 13100 | 630 | 8.6 | 23.0 |
| AUG | | | | | |
| 27... | 09:40 | 2940 | 995 | 8.3 | 25.5 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

## KANSAS RIVER BASIN

06891500 WAKARUSA R NR LAWRENCE, KS (LAT 38 54 40N LONG 095 15 37W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| JAN 1984 | | | | | |
| 03... | 14:30 | 6.7 | 535 | 7.5 | 0.5 |
| FEB | | | | | |
| 21... | 10:35 | 526 | 395 | 8.1 | 1.5 |
| MAR | | | | | |
| 14... | 14:45 | 249 | 373 | 8.4 | 5.0 |
| 29... | 14:00 | 1320 | 320 | 8.1 | 6.0 |
| MAY | | | | | |
| 15... | 14:25 | 1010 | 361 | 8.2 | 16.0 |
| JUN | | | | | |
| 04... | 08:45 | 489 | 360 | 8.5 | 20.0 |
| 26... | 09:45 | 67 | 397 | 8.1 | 23.0 |
| AUG | | | | | |
| 07... | 10:00 | 38 | 400 | 7.8 | 27.5 |
| SEP | | | | | |
| 10... | 13:30 | 27 | 365 | 8.1 | 25.5 |

06891850 STRANGER CR AT EASTON, KS (LAT 39 20 47N LONG 095 06 31W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| MAR 1984 | | | | | |
| 27... | 14:40 | 1150 | 232 | 7.8 | 5.0 |

## BLUE RIVER BASIN

06893080 BLUE R NR STANLEY, KS (LAT 38 48 45N LONG 094 40 31W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 17... | 11:20 | 3.0 | 531 | 7.8 | 7.0 |
| DEC | | | | | |
| 20... | 10:00 | 7.8 | 585 | 7.8 | 0.0 |
| FEB 1984 | | | | | |
| 04... | 16:25 | 12 | 420 | 7.6 | 1.0 |
| MAR | | | | | |
| 14... | 11:00 | 31 | 441 | 7.9 | 5.5 |
| APR | | | | | |
| 30... | 11:00 | 141 | 350 | 8.8 | 11.5 |
| JUN | | | | | |
| 08... | 10:30 | 6.7 | 508 | 7.8 | 22.0 |
| JUL | | | | | |
| 10... | 13:20 | 7.5 | 380 | 7.7 | 27.0 |
| AUG | | | | | |
| 28... | 08:00 | 0.02 | 430 | 7.7 | -- |

06893300 INDIAN C AT OVERLAND PARK, KS (LAT 38 56 30N LONG 094 40 10W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 21... | 12:05 | 7.2 | 926 | 7.3 | 10.5 |
| FEB 1984 | | | | | |
| 06... | 13:25 | 14 | 1000 | 7.5 | 1.0 |
| MAR | | | | | |
| 16... | 14:20 | 29 | 1500 | 7.8 | 7.5 |
| APR | | | | | |
| 30... | 14:30 | 43 | 443 | 8.6 | 16.5 |
| JUN | | | | | |
| 08... | 12:20 | 10 | 845 | 7.7 | 26.0 |
| 21... | 11:10 | 453 | 225 | 7.6 | 21.5 |
| JUL | | | | | |
| 10... | 10:25 | 8.0 | 617 | 7.6 | 27.0 |
| AUG | | | | | |
| 28... | 10:00 | 6.4 | 720 | 7.5 | 25.5 |

## OSAGE RIVER BASIN

06910800 MARAIS DES CYGNES R NR READING, KS (LAT 38 34 00N LONG 095 57 50W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 09... | 14:15 | 1.2 | 482 | 7.8 | 11.0 |
| DEC | | | | | |
| 29... | 12:40 | 12 | 785 | 7.6 | 0.0 |
| MAR 1984 | | | | | |
| 15... | 10:45 | 50 | 515 | 8.2 | 9.5 |
| APR | | | | | |
| 25... | 15:50 | 126 | 460 | 8.3 | 16.5 |
| JUN | | | | | |
| 08... | 11:15 | 224 | 280 | 8.6 | 24.0 |
| JUL | | | | | |
| 24... | 14:25 | 3.8 | 510 | 6.7 | 28.0 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

OSAGE RIVER BASIN

06911500 SALT C NR LYNDON, KS (LAT 38 36 32N LONG 095 38 17W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 10... | 16:30 | 4.1 | 426 | 8.1 | 8.0 |
| DEC | | | | | |
| 29... | 16:10 | 4.6 | 565 | 7.6 | 0.0 |
| JAN 1984 | | | | | |
| 31... | 09:25 | 28 | 515 | 8.1 | 0.0 |
| MAR | | | | | |
| 13... | 10:50 | 26 | 518 | 8.1 | 5.0 |
| APR | | | | | |
| 24... | 14:35 | 87 | 390 | 8.2 | 12.5 |
| JUN | | | | | |
| 07... | 14:00 | 4.6 | 595 | 8.3 | 25.0 |
| JUL | | | | | |
| 24... | 17:50 | 0.42 | 500 | 6.7 | 29.5 |

06912500 HUNDRED AND TEN MILE C NR QUENEMO, KS (LAT 38 38 41N LONG 095 33 34W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 15... | 13:50 | 17 | 325 | 8.1 | 9.0 |
| DEC | | | | | |
| 22... | 13:15 | 106 | 303 | 8.0 | 1.0 |
| JAN 1984 | | | | | |
| 31... | 13:40 | 261 | 347 | 7.9 | 3.5 |
| MAR | | | | | |
| 13... | 15:40 | 22 | 370 | 8.4 | 5.5 |
| APR | | | | | |
| 25... | 10:05 | 1010 | 345 | 8.2 | 11.0 |
| JUL | | | | | |
| 27... | 14:15 | 20 | 530 | 6.7 | 28.0 |

06913000 MARAIS DES CYGNES R NR POMONA, KS (LAT 38 35 03N LONG 095 27 12W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| DEC 1983 | | | | | |
| 22... | 10:35 | 190 | 416 | 7.8 | 0.5 |
| FEB 1984 | | | | | |
| 07... | 10:40 | 388 | 430 | 8.2 | 2.0 |
| MAR | | | | | |
| 14... | 12:00 | 352 | 388 | 8.1 | 5.0 |
| APR | | | | | |
| 26... | 10:15 | 2430 | 360 | 8.4 | 13.0 |
| JUN | | | | | |
| 07... | 13:45 | 144 | 65 | 7.6 | 22.0 |
| JUL | | | | | |
| 27... | 11:20 | 50 | 470 | 6.7 | 26.0 |

06913500 MARAIS DES CYGNES R NR OTTAWA, KS (LAT 38 37 00N LONG 095 15 25W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 08... | 16:40 | 50 | 397 | 8.1 | 13.0 |
| DEC | | | | | |
| 28... | 13:15 | 310 | 450 | 7.4 | 0.5 |
| JAN 1984 | | | | | |
| 30... | 14:30 | 286 | 495 | 8.1 | 1.0 |
| MAR | | | | | |
| 13... | 17:15 | 723 | 362 | 8.3 | 5.0 |
| APR | | | | | |
| 26... | 11:50 | 2430 | 357 | 8.5 | 15.0 |
| JUN | | | | | |
| 07... | 10:00 | 149 | 490 | 8.4 | 23.0 |
| JUL | | | | | |
| 10... | 16:50 | 178 | 410 | 7.7 | 29.5 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | Ph (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| OSAGE RIVER BASIN | | | | | |
| 06915000 BIG BULL C NR HILLSDALE, KS (LAT 38 38 12N LONG 094 53 29W) | | | | | |
| OCT 1983 | | | | | |
| 28... | 11:40 | 13 | 299 | 7.9 | 14.5 |
| DEC | | | | | |
| 09... | 12:05 | 505 | 321 | 7.9 | 3.0 |
| JAN 1984 | | | | | |
| 13... | 13:25 | 7.0 | 430 | 7.7 | 2.0 |
| MAR | | | | | |
| 06... | 14:45 | 90 | 362 | 6.7 | 6.0 |
| APR | | | | | |
| 19... | 11:45 | 392 | 332 | 8.3 | 9.0 |
| MAY | | | | | |
| 24... | 12:50 | 6.5 | 344 | 7.9 | 23.0 |
| JUL | | | | | |
| 23... | 12:20 | 1030 | 240 | 6.9 | 26.5 |
| 06916600 MARAIS DES CYGNES R NR KS-MO ST LINE, KS (LAT 38 13 21N LONG 094 40 04W). | | | | | |
| OCT 1983 | | | | | |
| 24... | 11:50 | 274 | 312 | 7.8 | 13.5 |
| DEC | | | | | |
| 08... | 16:10 | 1920 | 388 | 7.4 | 3.0 |
| JAN 1984 | | | | | |
| 13... | 09:30 | 1610 | 422 | 8.0 | 0.0 |
| FEB | | | | | |
| 28... | 10:40 | 3940 | 430 | 7.2 | 5.0 |
| APR | | | | | |
| 10... | 10:30 | 16700 | 269 | 7.8 | 10.5 |
| MAY | | | | | |
| 21... | 10:30 | 1730 | 421 | 7.6 | 20.5 |
| JUL | | | | | |
| 10... | 10:15 | 1640 | 273 | 7.6 | 25.5 |
| AUG | | | | | |
| 14... | 10:15 | 3.6 | 319 | 7.9 | 27.0 |
| SEP | | | | | |
| 25... | 10:30 | 2.9 | 528 | 8.3 | 19.0 |
| 06917000 L OSAGE R AT FULTON, KS (LAT 38 01 09N LONG 094 42 48W) | | | | | |
| OCT 1983 | | | | | |
| 24... | 14:20 | 28 | 270 | 7.8 | 12.5 |
| DEC | | | | | |
| 08... | 13:05 | 164 | 408 | 7.6 | 3.0 |
| JAN 1984 | | | | | |
| 12... | 16:45 | 90 | 490 | 7.6 | 0.0 |
| FEB | | | | | |
| 28... | 13:50 | 1260 | 330 | 7.7 | 4.0 |
| APR | | | | | |
| 10... | 13:45 | 852 | 352 | 7.7 | 11.0 |
| MAY | | | | | |
| 21... | 12:50 | 97 | 502 | 7.6 | 21.0 |
| JUL | | | | | |
| 10... | 12:40 | 14 | 415 | 7.6 | 28.0 |
| AUG | | | | | |
| 14... | 12:50 | 0.42 | 454 | 7.9 | 27.0 |
| 06917380 MARMATON R NR MARMATON, KS (LAT 37 49 03N LONG 094 47 30W) | | | | | |
| DEC 1983 | | | | | |
| 08... | 09:50 | 170 | 380 | 7.6 | 3.0 |
| JAN 1984 | | | | | |
| 12... | 14:30 | 74 | 443 | 7.8 | 0.0 |
| FEB | | | | | |
| 28... | 16:50 | 1040 | 253 | 7.6 | 4.0 |
| APR | | | | | |
| 10... | 16:35 | 632 | 333 | 7.8 | 12.0 |
| MAY | | | | | |
| 21... | 15:30 | 50 | 472 | 7.5 | 22.0 |
| JUL | | | | | |
| 10... | 15:45 | 12 | 309 | 8.2 | 30.0 |
| AUG | | | | | |
| 14... | 14:40 | 0.31 | 442 | 8.0 | 27.0 |
| SEP | | | | | |
| 25... | 13:45 | 0.03 | 429 | 8.1 | 18.0 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### ARKANSAS RIVER BASIN

07142570 RATTLESNAKE C AB L SALT MARSH NR HUDSON, KS (LAT 38 05 13N LONG 098 34 52W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| SEP 1984 | | | | | |
| 26... | 09:20 | 0.55 | 6500 | 8.5 | 11.0 |

07142650 PEACE C NR SYLVIA, KS (LAT 38 04 34N LONG 098 26 18W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| SEP 1984 | | | | | |
| 26... | 12:50 | 0.01 | 8000 | 9.0 | 13.0 |

07142670 PEACE C NR STERLING, KS (LAT 38 08 43N LONG 098 15 13W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| SEP 1984 | | | | | |
| 26... | 11:35 | 0.86 | 2180 | 8.3 | 12.5 |

07142740 SALT C NR HUTCHINSON, KS (LAT 38 04 23N LONG 098 02 11W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| SEP 1984 | | | | | |
| 26... | 10:10 | 2.5 | 4600 | 8.0 | 10.5 |

07144200 L ARKANSAS R AT VALLEY CENTER, KS (LAT 37 49 56N LONG 097 23 16W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 03... | 12:40 | 29 | 820 | 7.6 | 17.0 |
| DEC | | | | | |
| 14... | 16:05 | 28 | 1000 | 8.0 | 1.5 |
| JAN 1984 | | | | | |
| 25... | 16:50 | 43 | 850 | 7.8 | 0.0 |
| MAR | | | | | |
| 07... | 16:10 | 41 | 840 | 8.7 | 12.0 |
| APR | | | | | |
| 16... | 15:20 | 394 | 585 | 8.0 | 14.0 |
| MAY | | | | | |
| 30... | 18:00 | 103 | 1010 | 8.6 | 22.5 |
| JUL | | | | | |
| 13... | 06:50 | 21 | 765 | 8.5 | 23.5 |
| AUG | | | | | |
| 22... | 15:55 | 10 | 730 | 8.7 | 30.0 |

07144300 ARKANSAS R AT WICHITA, KS (LAT 37 39 41N LONG 097 20 06W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 05... | 11:40 | 71 | 1400 | 8.0 | 20.0 |
| DEC | | | | | |
| 16... | 11:10 | 106 | 1950 | 8.0 | 0.5 |
| JAN 1984 | | | | | |
| 26... | 14:50 | 1.7 | 1840 | 8.1 | 5.0 |
| MAR | | | | | |
| 09... | 11:40 | 167 | 2240 | 8.9 | 7.0 |
| APR | | | | | |
| 27... | 10:35 | 1350 | 1710 | 8.2 | 17.5 |
| JUN | | | | | |
| 15... | 10:00 | 831 | 1560 | 8.1 | 26.0 |
| JUL | | | | | |
| 19... | 09:05 | 177 | 1950 | 7.7 | 23.0 |

07144550 ARKANSAS R AT DERBY, KS (LAT 37 32 34N LONG 097 16 31W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| JAN 1984 | | | | | |
| 07... | 12:20 | 298 | 1620 | 7.8 | 5.0 |
| FEB | | | | | |
| 09... | 10:40 | 377 | 1650 | 7.9 | 7.5 |
| MAR | | | | | |
| 15... | 15:55 | 292 | 1960 | 8.5 | 13.0 |
| APR | | | | | |
| 27... | 14:15 | 1300 | 1630 | 8.2 | 20.5 |
| JUN | | | | | |
| 15... | 13:35 | 899 | 1930 | 8.9 | 29.0 |
| JUL | | | | | |
| 19... | 12:00 | 260 | 1820 | 8.2 | 26.5 |

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WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| ARKANSAS RIVER BASIN | | | | | |
| 07144590 NF NINNESCAH R NR SYLVIA, KS (LAT 37 55 59N LONG 098 24 36W) | | | | | |
| SEP 1984 | | | | | |
| 25... | 16:40 | 4.4 | 1830 | 8.5 | 17.0 |
| 07144620 NF NINNESCAH R AB SILVER C NR ARLINGTON, KS (LAT 37 51 09N LONG 098 09 30W) | | | | | |
| SEP 1984 | | | | | |
| 25... | 14:35 | 13 | 1290 | 8.5 | 18.0 |
| 07144640 SILVER C NR LANGDON, KS (LAT 37 47 54N LONG 098 19 59W) | | | | | |
| SEP 1984 | | | | | |
| 25... | 11:05 | 0.55 | 1680 | 8.2 | 12.0 |
| 07144795 NF NINNESCAH R AT CHENEY DAM, KS (LAT 37 43 17N LONG 097 47 39W) | | | | | |
| NOV 1983 | | | | | |
| 03... | 15:10 | 0.17 | 950 | 8.2 | 21.0 |
| DEC | | | | | |
| 15... | 11:50 | 0.22 | 1150 | 7.9 | 2.0 |
| JAN 1984 | | | | | |
| 26... | 08:50 | 0.15 | 985 | 7.8 | 0.5 |
| MAR | | | | | |
| 08... | 08:35 | 0.06 | 1100 | 8.1 | 0.5 |
| APR | | | | | |
| 18... | 09:35 | 1030 | 840 | 8.5 | 11.0 |
| MAY | | | | | |
| 30... | 14:15 | 0.21 | 865 | 8.5 | 27.0 |
| JUL | | | | | |
| 12... | 16:50 | 0.13 | 845 | 8.5 | 36.0 |
| AUG | | | | | |
| 17... | 10:00 | 0.16 | 925 | 8.3 | 25.0 |
| 07144890 SF NINNESCAH R AT PRATT, KS (LAT 37 38 03N LONG 098 44 15W) | | | | | |
| SEP 1984 | | | | | |
| 24... | 15:20 | 7.1 | 415 | 8.3 | 22.0 |
| 07145130 SF NINNESCAH R NR CALISTA, KS (LAT 37 38 45N LONG 098 17 12W) | | | | | |
| SEP 1984 | | | | | |
| 25... | 08:50 | 69 | 1890 | 8.2 | 11.0 |
| 07146623 WALNUT R BL EL DORADO LK, KS (LAT 37 50 43N LONG 096 49 25W) | | | | | |
| OCT 1983 | | | | | |
| 06... | 14:15 | 10 | 430 | 8.0 | -- |
| JAN 1984 | | | | | |
| 03... | 14:15 | 3.8 | 310 | 8.3 | 0.0 |
| FEB | | | | | |
| 06... | 17:10 | 6.9 | 323 | 8.2 | 5.0 |
| MAR | | | | | |
| 12... | 12:55 | 6.9 | 305 | 7.9 | 5.5 |
| APR | | | | | |
| 23... | 13:35 | 502 | 256 | 8.5 | 10.5 |
| JUL | | | | | |
| 11... | 17:25 | 0.87 | 261 | 8.2 | 29.5 |
| AUG | | | | | |
| 22... | 11:20 | 18 | 272 | 8.3 | 27.0 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

ARKANSAS RIVER BASIN

07146830 WALNUT R AT HWY 54 E OF EL DORADO, KS (LAT 37 49 01N LONG 096 50 21W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 06... | 09:25 | 9.5 | 500 | 7.6 | 18.0 |
| NOV | | | | | |
| 07... | 15:00 | 10 | 601 | 7.6 | 15.5 |
| JAN 1984 | | | | | |
| 27... | 12:15 | 32 | 1650 | 7.9 | 0.5 |
| MAR | | | | | |
| 13... | 09:15 | 30 | 459 | 8.1 | 6.0 |
| APR | | | | | |
| 23... | 17:00 | 663 | 269 | 8.8 | 11.5 |
| JUN | | | | | |
| 12... | 08:05 | 40 | 589 | 7.6 | 23.5 |
| JUL | | | | | |
| 11... | 19:05 | 15 | 808 | 8.3 | 28.5 |
| AUG | | | | | |
| 21... | 17:35 | 12 | 287 | 8.1 | 27.5 |

07146895 WALNUT R AT AUGUSTA, KS (LAT 37 40 14N LONG 096 58 48W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| NOV 1983 | | | | | |
| 08... | 11:50 | 16 | 1240 | 7.6 | 15.0 |
| JAN 1984 | | | | | |
| 04... | 12:35 | 22 | 1280 | 7.8 | 0.0 |
| 27... | 09:30 | 25 | 1110 | 7.8 | 0.0 |
| MAR | | | | | |
| 13... | 11:30 | 60 | 895 | 7.6 | 7.0 |
| APR | | | | | |
| 24... | 13:15 | 694 | 390 | 8.8 | 12.5 |
| JUN | | | | | |
| 12... | 11:05 | 105 | 669 | 8.2 | 25.0 |
| JUL | | | | | |
| 16... | 11:35 | 33 | 879 | 7.7 | 27.0 |
| AUG | | | | | |
| 27... | 11:40 | 22 | 798 | 7.6 | 26.0 |

07151500 CHIKASKIA R NR CORBIN, KS (LAT 37 07 44N LONG 097 36 04W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 11... | 13:35 | 60 | 1800 | 8.6 | 20.0 |
| NOV | | | | | |
| 09... | 14:05 | 114 | 623 | 8.3 | 11.0 |
| JAN 1984 | | | | | |
| 05... | 14:20 | 130 | 620 | 8.1 | 0.0 |
| FEB | | | | | |
| 08... | 09:10 | 98 | 610 | 8.2 | 4.0 |
| MAR | | | | | |
| 14... | 16:30 | 144 | 638 | 8.4 | 15.5 |
| APR | | | | | |
| 26... | 10:00 | 328 | 652 | 8.3 | 20.5 |

07166000 VERDIGRIS R NR COYVILLE, KS (LAT 37 42 20N LONG 095 54 20W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 18... | 11:20 | 8.7 | 436 | 7.9 | 15.5 |
| NOV | | | | | |
| 29... | 09:20 | 16 | 365 | 8.5 | 4.0 |
| JAN 1984 | | | | | |
| 10... | 09:55 | 196 | 580 | 8.1 | 2.5 |
| FEB | | | | | |
| 28... | 09:35 | 84 | 565 | 8.5 | 6.0 |
| APR | | | | | |
| 03... | 10:35 | 3060 | 345 | 7.8 | 7.0 |
| MAY | | | | | |
| 14... | 16:10 | 250 | 382 | 8.2 | 21.0 |
| AUG | | | | | |
| 06... | 12:20 | 4.3 | 344 | 8.0 | 28.0 |
| SEP | | | | | |
| 19... | 10:45 | 5.6 | 230 | 8.2 | 18.0 |

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## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### ARKANSAS RIVER BASIN

07166500 VERDIGRIS R NR ALTOONA, KS (LAT 37 29 26N LONG 095 40 49W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 24... | 13:40 | 62 | 266 | 7.8 | 14.0 |
| NOV | | | | | |
| 30... | 10:30 | 185 | 390 | 8.1 | 5.0 |
| JAN 1984 | | | | | |
| 24... | 12:45 | 45 | 695 | 7.6 | 0.5 |
| FEB | | | | | |
| 22... | 15:00 | 117 | 580 | 8.2 | 8.0 |
| AP | | | | | |
| 04... | 10:30 | 3760 | 340 | 8.3 | 7.5 |
| SEP | | | | | |
| 19... | 16:05 | 11 | 405 | 8.2 | 22.0 |

07167500 OTTER C AT CLIMAX, KS (LAT 37 42 30N LONG 096 13 30W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 19... | 13:40 | 3.0 | 648 | 8.0 | 16.5 |
| DEC | | | | | |
| 02... | 13:50 | 7.4 | 470 | 8.1 | 4.5 |
| JAN 1984 | | | | | |
| 10... | 14:05 | 11 | 620 | 7.8 | 1.5 |
| FEB | | | | | |
| 21... | 12:05 | 15 | 590 | 8.4 | 8.0 |
| APR | | | | | |
| 06... | 15:10 | 114 | 470 | 8.1 | 11.0 |
| MAY | | | | | |
| 15... | 14:30 | 49 | 515 | 8.1 | 22.0 |
| AUG | | | | | |
| 08... | 11:45 | 3.3 | 615 | 7.9 | 28.5 |
| SEP | | | | | |
| 18... | 12:05 | 0.6 | 230 | 8.1 | 19.0 |

07168500 FALL R NR FALL RIVER, KS (LAT 37 38 34N LONG 096 03 33W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 18... | 17:45 | 3.8 | 394 | 8.1 | 15.0 |
| NOV | | | | | |
| 29... | 14:00 | 2.6 | 415 | 8.5 | 5.0 |
| JAN 1984 | | | | | |
| 11... | 09:45 | 20 | 550 | 7.7 | 3.0 |
| FEB | | | | | |
| 21... | 17:20 | 68 | 515 | 8.3 | 7.0 |
| MAR | | | | | |
| 30... | 13:15 | 2550 | 400 | 8.4 | 8.0 |
| MAY | | | | | |
| 15... | 11:20 | 247 | 410 | 8.3 | 18.0 |
| AUG | | | | | |
| 06... | 11:40 | 6.2 | 390 | 8.5 | 26.5 |
| SEP | | | | | |
| 18... | 15:40 | 5.0 | 305 | 8.3 | 25.0 |

07169500 FALL R AT FREDONIA, KS (LAT 37 30 30N LONG 095 50 00W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 19... | 09:50 | 8.7 | 625 | 7.7 | 16.5 |
| NOV | | | | | |
| 29... | 16:50 | 33 | 505 | 8.0 | 5.5 |
| JAN 1984 | | | | | |
| 11... | 14:00 | 30 | 590 | 7.3 | 1.0 |
| FEB | | | | | |
| 22... | 12:15 | 76 | 510 | 8.1 | 9.0 |
| APR | | | | | |
| 03... | 16:05 | 3460 | 360 | 8.0 | 7.0 |
| AUG | | | | | |
| 08... | 09:40 | 14 | 619 | 8.3 | 28.5 |
| SEP | | | | | |
| 19... | 13:45 | 9.0 | 435 | 8.8 | 21.0 |

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## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### ARKANSAS RIVER BASIN

07169800 ELK R AT ELK FALLS, KS (LAT 37 22 32N LONG 096 11 07W)

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 19... | 16:10 | 0.32 | 463 | 7.7 | 17.0 |
| DEC | | | | | |
| 02... | 11:05 | 0.6 | 550 | 8.0 | 5.0 |
| JAN 1984 | | | | | |
| 12... | 15:50 | 2.2 | 640 | 7.3 | 3.5 |
| FEB | | | | | |
| 23... | 09:15 | 3.4 | 520 | 8.4 | 7.5 |
| APR | | | | | |
| 06... | 12:00 | 218 | 405 | 7.8 | 10.0 |
| MAY | | | | | |
| 18... | 10:50 | 262 | 350 | 8.2 | 21.5 |
| AUG | | | | | |
| 07... | 16:10 | 0.96 | 320 | 7.9 | 30.0 |
| SEP | | | | | |
| 20... | 13:30 | 0.23 | 460 | 9.0 | 22.5 |

07170060 ELK R BL ELK CITY LK, KS (LAT 37 16 46N LONG 095 46 53W)

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 20... | 18:00 | 20 | 272 | 7.9 | 16.0 |
| NOV | | | | | |
| 30... | 14:55 | 10 | 330 | 9.5 | 7.0 |
| JAN 1984 | | | | | |
| 12... | 08:40 | 10 | 370 | 7.7 | 3.5 |
| FEB | | | | | |
| 23... | 15:30 | 19 | 352 | 8.3 | 7.5 |
| APR | | | | | |
| 04... | 15:30 | 1170 | 260 | 7.8 | 7.5 |
| MAY | | | | | |
| 17... | 10:10 | 1270 | 348 | 8.1 | 19.0 |
| AUG | | | | | |
| 07... | 09:30 | 180 | 282 | 9.1 | 26.5 |
| SEP | | | | | |
| 20... | 09:55 | 17 | 90 | 9.2 | 19.0 |

07170500 VERDIGRIS R AT INDEPENDENCE, KS (LAT 37 13 26N LONG 095 40 43W)

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 21... | 12:50 | 8530 | 137 | 7.3 | 14.0 |
| DEC | | | | | |
| 01... | 09:40 | 644 | 480 | 8.4 | 5.0 |
| JAN 1984 | | | | | |
| 13... | 12:55 | 274 | 610 | 7.7 | 1.0 |
| FEB | | | | | |
| 24... | 10:10 | 240 | 555 | 8.4 | 9.0 |
| APR | | | | | |
| 05... | 09:25 | 7850 | 390 | 8.2 | 7.5 |
| MAY | | | | | |
| 16... | 15:55 | 1150 | 438 | 8.0 | 20.0 |
| AUG | | | | | |
| 07... | 13:45 | 193 | 320 | 8.1 | 27.5 |
| SEP | | | | | |
| 20... | 16:25 | 33 | 300 | 8.0 | 22.0 |

07170700 BIG HILL C NR CHERRYVALE, KS (LAT 37 16 00N LONG 095 28 05W)

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| OCT 1983 | | | | | |
| 26... | 13:10 | 44 | 259 | 7.9 | 15.5 |
| DEC | | | | | |
| 06... | 16:45 | 34 | 252 | 7.8 | 3.0 |
| JAN 1984 | | | | | |
| 11... | 12:30 | 6.3 | 308 | 7.6 | 2.0 |
| MAR | | | | | |
| 01... | 10:45 | 97 | 282 | 8.5 | 5.0 |
| APR | | | | | |
| 12... | 10:35 | 156 | 252 | 7.9 | 12.0 |
| MAY | | | | | |
| 23... | 10:15 | 5.4 | 291 | 7.4 | 22.0 |
| 29... | 13:30 | 362 | 233 | 8.6 | 19.5 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|
| ARKANSAS RIVER BASIN | | | | | |
| 07172000 | CANEY R NR ELGIN, KS (LAT 37 00 13N LONG 096 18 54W) | | | | |
| OCT 1983 | | | | | |
| 20... | 11:40 | 4.5 | 432 | 7.9 | 17.5 |
| DEC | | | | | |
| 01... | 14:55 | 27 | 550 | 8.2 | 5.0 |
| JAN 1984 | | | | | |
| 12... | 12:20 | 26 | 570 | 7.6 | 1.5 |
| FEB | | | | | |
| 23... | 12:25 | 21 | 550 | 8.2 | 8.5 |
| APR | | | | | |
| 05... | 14:45 | 760 | 450 | 8.1 | 9.0 |
| MAY | | | | | |
| 17... | 15:15 | 630 | 350 | 8.1 | 21.0 |
| JUL | | | | | |
| 17... | 14:50 | 8.8 | 455 | 7.4 | 31.5 |
| 07179500 | NEOSHO R AT COUNCIL GROVE, KS (LAT 38 39 54N LONG 096 29 38W) | | | | |
| OCT 1983 | | | | | |
| 17... | 12:45 | 4.7 | 343 | 8.0 | 15.0 |
| NOV | | | | | |
| 28... | 15:50 | 465 | 387 | 8.1 | 3.0 |
| FEB 1984 | | | | | |
| 25... | 14:00 | 56 | 325 | 8.5 | 6.0 |
| MAR | | | | | |
| 27... | 14:25 | 1230 | 280 | 7.9 | 5.5 |
| MAY | | | | | |
| 01... | 16:05 | 1070 | 300 | 8.3 | 12.0 |
| JUN | | | | | |
| 12... | 17:45 | 91 | 340 | 8.0 | 25.0 |
| 07179730 | NEOSHO R NR AMERICUS, KS (LAT 38 28 01N LONG 096 15 01W) | | | | |
| OCT 1983 | | | | | |
| 17... | 16:20 | 7.4 | 423 | 8.0 | 15.5 |
| NOV | | | | | |
| 28... | 10:35 | 1770 | 242 | 7.7 | 6.5 |
| FEB 1984 | | | | | |
| 25... | 11:05 | 143 | 450 | 8.1 | 5.5 |
| MAR | | | | | |
| 27... | 11:40 | 3390 | 240 | 8.0 | 7.5 |
| MAY | | | | | |
| 01... | 12:50 | 1000 | 335 | 8.0 | 13.5 |
| JUN | | | | | |
| 12... | 14:45 | 506 | 410 | 7.7 | 23.0 |
| JUL | | | | | |
| 10... | 11:20 | 207 | 400 | 8.2 | 28.0 |
| AUG | | | | | |
| 21... | 10:50 | 22 | 433 | 8.0 | 26.0 |
| 07179795 | COTTONWOOD R BL MARION LK, KS (LAT 38 22 00N LONG 097 05 00W) | | | | |
| NOV 1983 | | | | | |
| 02... | 09:00 | 5.7 | 602 | 7.9 | 14.0 |
| DEC | | | | | |
| 13... | 14:50 | 2.7 | 655 | 8.1 | 3.0 |
| JAN 1984 | | | | | |
| 24... | 15:25 | 2.7 | 1020 | 7.9 | 3.5 |
| MAR | | | | | |
| 06... | 14:30 | 1.6 | 725 | 8.3 | 9.0 |
| APR | | | | | |
| 19... | 16:40 | 440 | 550 | 8.1 | 10.5 |
| JUN | | | | | |
| 01... | 09:05 | 10 | 540 | 8.1 | 18.0 |
| 07180400 | COTTONWOOD R NR FLORENCE, KS (LAT 38 14 10N LONG 096 52 37W) | | | | |
| NOV 1983 | | | | | |
| 01... | 13:10 | 46 | 940 | 7.9 | 15.0 |
| DEC | | | | | |
| 13... | 09:30 | 72 | 1160 | 7.9 | 1.5 |
| JAN 1984 | | | | | |
| 24... | 10:30 | 71 | 1380 | 8.0 | 0.0 |
| MAR | | | | | |
| 06... | 09:50 | 90 | 1150 | 8.1 | 5.0 |
| APR | | | | | |
| 20... | 13:00 | 782 | 820 | 8.1 | 11.0 |
| JUN | | | | | |
| 01... | 14:40 | 158 | 1150 | 8.1 | 20.0 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|
| ARKANSAS RIVER BASIN | | | | | |
| 07180500 CEDAR C NR CEDAR POINT, KS (LAT 38 11 55N LONG 096 49 22W) | | | | | |
| NOV 1983 | | | | | |
| 01... | 09:30 | 5.4 | 468 | 7.8 | 14.0 |
| JAN 1984 | | | | | |
| 23... | 16:40 | 13 | 607 | 8.1 | 0.0 |
| MAR | | | | | |
| 05... | 17:35 | 50 | 395 | 8.1 | 6.5 |
| APR | | | | | |
| 20... | 09:30 | 81 | 535 | 8.1 | 12.0 |
| JUN | | | | | |
| 01... | 12:30 | 33 | 560 | 8.0 | 19.0 |
| 07182250 COTTONWOOD R NR PLYMOUTH, KS (LAT 38 23 51N LONG 096 21 21W) | | | | | |
| OCT 1983 | | | | | |
| 18... | 08:50 | 64 | 897 | 8.1 | 13.5 |
| 31... | 11:40 | 66 | 865 | 8.0 | 13.5 |
| DEC | | | | | |
| 12... | 11:10 | 204 | 640 | 8.4 | 0.5 |
| JAN 1984 | | | | | |
| 23... | 13:30 | 186 | 740 | 8.1 | 0.0 |
| MAR | | | | | |
| 05... | 12:30 | 803 | 515 | 8.2 | 6.0 |
| APR | | | | | |
| 23... | 12:15 | 2730 | 580 | 7.9 | 10.0 |
| JUN | | | | | |
| 04... | 11:40 | 483 | 627 | 8.1 | 21.0 |
| AUG | | | | | |
| 21... | 13:30 | 65 | 780 | 8.2 | 27.0 |
| 07182510 NEOSHO R AT BURLINGTON, KS (LAT 38 11 40N LONG 095 44 10W) | | | | | |
| OCT 1983 | | | | | |
| 17... | 15:40 | 26 | 505 | 8.1 | 16.0 |
| NOV | | | | | |
| 28... | 12:35 | 242 | 575 | 8.2 | 6.0 |
| JAN 1984 | | | | | |
| 09... | 12:15 | 131 | 560 | 8.1 | 3.0 |
| FEB | | | | | |
| 27... | 13:50 | 1980 | 430 | 8.5 | 4.5 |
| APR | | | | | |
| 02... | 14:15 | 10200 | 280 | 8.5 | 6.5 |
| JUL | | | | | |
| 03... | 11:55 | 917 | 345 | 8.4 | 26.5 |
| 24... | 10:35 | 3450 | 410 | 6.6 | 27.0 |
| 07183000 NEOSHO R NR IOLA, KS (LAT 37 53 27N LONG 095 25 50W) | | | | | |
| OCT 1983 | | | | | |
| 27... | 09:20 | 41 | 489 | 7.9 | 13.0 |
| DEC | | | | | |
| 06... | 10:35 | 1470 | 473 | 8.0 | 3.0 |
| JAN 1984 | | | | | |
| 10... | 16:15 | 561 | 521 | 7.7 | 0.0 |
| MAR | | | | | |
| 01... | 16:30 | 2890 | 438 | 8.2 | 5.0 |
| APR | | | | | |
| 12... | 16:00 | 14800 | 311 | 7.8 | 12.0 |
| MAY | | | | | |
| 23... | 15:35 | 1550 | 518 | 7.8 | 23.0 |
| JUL | | | | | |
| 12... | 14:10 | 496 | 457 | 7.7 | 30.0 |
| AUG | | | | | |
| 16... | 09:20 | 46 | 455 | 8.2 | 26.0 |
| SEP | | | | | |
| 27... | 10:00 | 26 | 513 | 8.4 | 16.0 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### ARKANSAS RIVER BASIN

07142570 RATTLESNAKE C AB L SALT MARSH NR HUDSON, KS (LAT 38 05 13N LONG 098 34 52W)

| DATE | TIME | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|
| SEP 1984 | | | | |
| 26... | 09:20 | 250 | 2600 | -- |

07142650 PEACE C NR SYLVIA, KS (LAT 38 04 34N LONG 098 26 [illegible])

| DATE | TIME | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|
| DEC 1983 | | | | |
| 13... | 15:10 | 140 | 1500 | 2850 |
| SEP 1984 | | | | |
| 26... | 12:50 | 260 | 3400 | -- |

07142670 PEACE C NR STERLING, KS (LAT 38 08 43N LONG 098 15 13W)

| DATE | TIME | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|
| DEC 1983 | | | | |
| 13... | 15:50 | 150 | 1600 | 3050 |
| SEP 1984 | | | | |
| 26... | 11:35 | 74 | 590 | -- |

07142740 SALT C NR HUTCHINSON, KS (LAT 38 04 23N LONG 098 02 11W)

| DATE | TIME | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|
| DEC 1983 | | | | |
| 13... | 11:50 | 150 | 1200 | 2500 |
| SEP 1984 | | | | |
| 26... | 10:10 | 180 | 1600 | -- |

07144590 NF NINNESCAH R NR SYLVIA, KS (LAT 37 55 59N LONG 098 24 36W)

| DATE | TIME | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|
| DEC 1983 | | | | |
| 14... | 12:10 | 66 | 340 | 920 |
| SEP 1984 | | | | |
| 25... | 16:40 | 75 | 470 | -- |

07144620 NF NINNESCAH R AB SILVER C NR ARLINGTON, KS (LAT 37 51 09N LONG 098 09 30W)

| DATE | TIME | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|
| DEC 1983 | | | | |
| 14... | 16:30 | 53 | 240 | 740 |
| SEP 1984 | | | | |
| 25... | 14:35 | 59 | 320 | -- |

07144640 SILVER C NR LANGDON, KS (LAT 37 47 54N LONG 098 19 59W)

| DATE | TIME | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|
| DEC 1983 | | | | |
| 15... | 10:55 | 88 | 560 | 1410 |
| SEP 1984 | | | | |
| 25... | 11:05 | 58 | 390 | -- |

07144890 SF NINNESCAH R AT PRATT, KS (LAT 37 35 03N LONG 098 44 15W)

| DATE | TIME | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|
| SEP 1984 | | | | |
| 24... | 15:20 | 34 | 35 | -- |

07145130 SF NINNESCAH R NR CALISTA, KS (LAT 37 38 45N LONG 098 17 12W)

| DATE | TIME | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|
| DEC 1983 | | | | |
| 16... | 12:55 | 54 | 350 | 900 |
| SEP 1984 | | | | |
| 25... | 08:50 | 56 | 430 | -- |

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### KANSAS RIVER BASIN

06861000 SMOKY HILL R NR ARNOLD, KS (LAT 38 48 31N LONG 100 01 13W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| APR 1984 | | | | |
| 04... | 15:45 | 48 | 1860 | 241 |

06870200 SMOKY HILL R AT NEW CAMBRIA, KS (LAT 38 51 49N LONG 097 28 58W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| MAY 1984 | | | | |
| 07... | 19:25 | 5320 | 1200 | 17200 |

06891000 KANSAS R AT LECOMPTON, KS (LAT 39 03 07N LONG 095 23 15W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| JUL 1984 | | | | |
| 10... | 09:25 | 36700 | 435 | 43100 |

### OSAGE RIVER BASIN

06917000 L OSAGE R AT FULTON, KS (LAT 38 01 09N LONG 094 42 48W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| OCT 1983 | | | | |
| 24... | 14:20 | 28 | 58 | 4.4 |

### ARKANSAS RIVER BASIN

07139000 ARKANSAS R AT GARDEN CITY, KS (LAT 37 57 21N LONG 100 52 37W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| FEB 1984 | | | | |
| 13... | 16:00 | 62 | 77 | 13 |

07182510 NEOSHO R AT BURLINGTON, KS (LAT 38 11 40N LONG 095 44 10W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|
| JUL 1984 | | | | |
| 24... | 10:35 | 3450 | 81 | 755 |

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### KANSAS RIVER BASIN

06870200 SMOKY HILL R AT NEW CAMBRIA, KS (LAT 38 51 49N LONG 097 28 58W)

| DATE | TIME | SEDI-MENT, SUS-PENDED (MG/L) | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM |
|---|---|---|---|---|---|
| MAY 1984 | | | | | |
| 07... | 19:25 | 1200 | 97 | -- | -- |

06891000 KANSAS R AT LECOMPTON, KS (LAT 39 03 07N LONG 095 23 15W)

| DATE | TIME | SEDI-MENT, SUS-PENDED (MG/L) | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM |
|---|---|---|---|---|---|
| JUL 1984 | | | | | |
| 10... | 09:25 | 435 | 90 | 95 | 100 |

## MISCELLANEOUS WATER TEMPERATURES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| **06814000 TURKEY C NR SENECA, KS (LAT 39 56 52N LONG 096 06 33W)** | | | | | | | |
| OCT 1983 | | | | MAY 1984 | | | |
| 12... | 10:50 | 12 | 10.0 | 09... | 09:30 | 204 | 11.0 |
| NOV | | | | JUN | | | |
| 22... | 08:00 | 11 | 6.0 | 20... | 08:50 | 203 | 22.0 |
| JAN 1984 | | | | JUL | | | |
| 05... | 09:40 | 15 | 0.0 | 17... | 11:40 | 60 | 24.5 |
| FEB | | | | SEP | | | |
| 15... | 14:15 | 38 | 6.0 | 05... | 11:20 | 8.1 | 19.5 |
| MAR | | | | | | | |
| 29... | 08:50 | 312 | 3.5 | | | | |
| **06818260 WHITE CLAY C AT ATCHISON, KS (LAT 39 33 33N LONG 095 07 38W)** | | | | | | | |
| MAY 1984 | | | | | | | |
| 18... | 14:00 | 5.6 | 25.0 | | | | |
| **06844900 SF SAPPA C NR ACHILLES, KS (LAT 39 40 37N LONG 100 43 18W)** | | | | | | | |
| MAR 1984 | | | | JUN 1984 | | | |
| 29... | 09:15 | 0.16 | 3.0 | 13... | 11:15 | 0.33 | 24.0 |
| MAY | | | | | | | |
| 01... | 08:55 | 6.6 | 7.0 | | | | |
| **06846500 BEAVER C AT CEDAR BLUFFS, KS (LAT 39 59 06N LONG 100 33 35W)** | | | | | | | |
| MAY 1984 | | | | JUN 1984 | | | |
| 01... | 15:10 | 6.5 | 10.0 | 13... | 14:00 | 1.6 | 22.0 |
| **06847900 PRAIRIE DOG C AB KEITH SEBELIUS LAKE, KS (LAT 39 46 13N LONG 100 06 00W)** | | | | | | | |
| MAR 1984 | | | | JUN 1984 | | | |
| 28... | 14:30 | 3.0 | 3.5 | 13... | 18:55 | 2.3 | 22.0 |
| MAY | | | | JUL | | | |
| 02... | 12:15 | 13 | 11.5 | 17... | 11:15 | 0.21 | 22.0 |
| **06848000 PRAIRIE DOG C AT NORTON, KS (LAT 39 43 36N LONG 099 55 18W)** | | | | | | | |
| MAY 1984 | | | | | | | |
| 02... | 15:00 | 0.23 | 12.0 | | | | |
| **06848500 PRAIRIE DOG C NR WOODRUFF, KS (LAT 39 59 09N LONG 099 28 39W)** | | | | | | | |
| MAR 1984 | | | | MAY 1984 | | | |
| 28... | 11:25 | 0.16 | 4.0 | 03... | 09:55 | 14 | 10.0 |
| **06853500 REPUBLICAN R NR HARDY, NE (LAT 39 59 33N LONG 097 55 53W)** | | | | | | | |
| NOV 1983 | | | | MAY 1984 | | | |
| 16... | 09:50 | 235 | 7.0 | 09... | 15:40 | 1400 | 15.0 |
| DEC | | | | JUN | | | |
| 21... | 11:00 | 156 | 0.0 | 20... | 14:15 | 423 | 27.0 |
| FEB 1984 | | | | JUL | | | |
| 08... | 15:30 | 362 | 5.0 | 30... | 15:55 | 149 | 29.0 |
| MAR | | | | SEP | | | |
| 28... | 14:20 | 735 | 7.0 | 10... | 14:45 | 108 | 24.0 |

## MISCELLANEOUS WATER TEMPERATURES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

06853800 WHITE ROCK C NR BURR OAK, KS (LAT 39 53 55N LONG 098 15 05W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983<br>06... | 09:00 | 7.4 | 14.5 | MAY 1984<br>09... | 09:30 | 55 | 11.5 |
| NOV<br>16... | 16:00 | 9.2 | 5.5 | JUN<br>21... | 09:10 | 30 | 23.0 |
| DEC<br>21... | 15:00 | 6.5 | 0.0 | JUL<br>30... | 18:35 | 6.9 | 23.0 |
| FEB 1984<br>08... | 10:10 | 30 | 0.0 | SEP<br>10... | 16:55 | 3.7 | 21.0 |
| MAR<br>28... | 09:50 | 69 | 6.0 | | | | |
| 29... | 10:50 | 42 | 5.0 | | | | |

06854000 WHITE ROCK C AT LOVEWELL, KS (LAT 39 53 10N LONG 095 01 20W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983<br>16... | 12:35 | 0.02 | 7.0 | MAR 1984<br>28... | 12:35 | 0.3 | 6.5 |
| JAN 1984<br>09... | 11:45 | 0.03 | 0.0 | MAY<br>09... | 13:00 | 270 | 12.5 |
| FEB<br>08... | 12:00 | 0.1 | 2.5 | JUN<br>21... | 14:00 | 227 | 24.0 |

06855800 BUFFALO C NR JAMESTOWN, KS (LAT 39 36 55N LONG 097 51 20W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983<br>17... | 11:00 | 2.8 | 5.5 | MAY 1984<br>09... | 17:50 | 272 | 15.5 |
| DEC<br>22... | 13:40 | 9.7 | 0.0 | JUN<br>20... | 09:20 | 86 | 24.5 |
| FEB 1984<br>09... | 09:30 | 51 | 2.0 | JUL<br>31... | 09:00 | 14 | 22.0 |
| MAR<br>29... | 09:10 | 122 | 4.0 | SEP<br>11... | 08:45 | 3.1 | 19.5 |

06856000 REPUBLICAN R AT CONCORDIA, KS (LAT 39 35 25N LONG 097 39 32W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983<br>17... | 14:10 | 334 | 8.5 | MAY 1984<br>09... | 16:30 | 2160 | 14.5 |
| DEC<br>22... | 11:00 | 259 | 0.0 | JUN<br>19... | 15:30 | 1130 | 26.0 |
| FEB 1984<br>07... | 15:40 | 702 | 2.0 | JUL<br>31... | 11:15 | 440 | 24.0 |
| MAR<br>29... | 14:20 | 1010 | 9.0 | | | | |

06856100 WEST C NR TALMO, KS (LAT 39 40 30N LONG 097 36 48W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|
| JUN 1984<br>19... | 18:10 | 17 | 25.0 |

06856600 REPUBLICAN R AT CLAY CENTER, KS (LAT 39 21 20N LONG 097 07 34W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983<br>15... | 15:00 | 400 | 6.5 | MAY 1984<br>16... | 13:40 | 1960 | 14.0 |
| DEC<br>20... | 14:00 | 229 | 0.0 | JUN<br>27... | 14:35 | 1460 | 25.5 |
| FEB 1984<br>09... | 15:00 | 1220 | 2.0 | AUG<br>14... | 11:20 | 392 | 28.0 |
| APR<br>04... | 09:30 | 9140 | 6.5 | SEP<br>15... | 16:10 | 151 | 21.5 |

06857100 REPUBLICAN R BL MILFORD DAM, KS (LAT 39 04 15N LONG 096 52 00W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983<br>18... | 10:20 | 356 | 11.0 | MAY 1984<br>10... | 13:00 | 4070 | 13.0 |
| FEB 1984<br>10... | 09:50 | 1010 | 4.0 | JUN<br>20... | 14:50 | 1600 | 23.0 |
| MAR<br>30... | 09:35 | 2450 | 5.0 | SEP<br>25... | 11:05 | 14 | 16.0 |

06859500 NF SMOKY HILL R NR MCALLASTER, KS (LAT 39 01 01N LONG 101 20 51W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| APR 1984<br>05... | 14:25 | 5.6 | 12.0 | MAY 1984<br>15... | 13:10 | 2.9 | 24.0 |

06860000 SMOKY HILL R AT ELKADER, KS (LAT 38 47 33N LONG 100 51 19W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983<br>17... | 15:25 | 0.2 | 9.0 | APR 1984<br>05... | 12:05 | 8.2 | 8.5 |
| JAN 1984<br>06... | 14:35 | 2.0 | 0.0 | MAY<br>08... | 13:20 | 25 | 16.5 |
| FEB<br>09... | 11:45 | 2.3 | 4.0 | JUN<br>20... | 10:25 | 1.2 | 23.5 |

06861000 SMOKY HILL R NR ARNOLD, KS (LAT 38 48 31N LONG 100 01 13W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983<br>18... | 15:25 | 0.07 | 16.5 | MAY 1984<br>08... | 16:35 | 22 | 19.0 |
| APR 1984<br>04... | 15:45 | 48 | 11.5 | JUN<br>08... | 10:20 | 2.2 | 20.5 |

06862700 SMOKY HILL R NR SCHOENCHEN, KS (LAT 38 43 30N LONG 099 23 30W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| JAN 1984<br>05... | 15:10 | 0.14 | 0.0 | MAY 1984<br>04... | 15:30 | 16 | 21.0 |
| FEB<br>07... | 13:45 | 4.5 | 5.0 | JUN<br>13... | 11:05 | 2.4 | 22.5 |
| APR<br>03... | 17:00 | 54 | 7.0 | AUG<br>02... | 14:10 | 0.06 | 35.0 |

06862850 SMOKY HILL R BL SCHOENCHEN, KS (LAT 38 42 46N LONG 099 17 33W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| MAY 1984<br>04... | 13:10 | 19 | 20.5 | JUN 1984<br>13... | 12:40 | 0.36 | 21.5 |

06863000 SMOKY HILL R AT PFEIFER, KS (LAT 38 42 51N LONG 099 09 10W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|
| APR 1984<br>04... | 10:15 | 33 | 8.0 |

06863500 BIG C NR HAYS, KS (LAT 38 48 45N LONG 099 15 14W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983<br>18... | 12:20 | 1.7 | 14.0 | JUN 1984<br>06... | 10:55 | 5.8 | 23.5 |
| NOV<br>16... | 14:55 | 2.4 | 7.5 | AUG<br>02... | 10:15 | 2.1 | 23.0 |
| JAN 1984<br>05... | 13:40 | 3.0 | 0.0 | SEP<br>05... | 10:05 | 1.9 | 19.0 |
| FEB<br>07... | 13:35 | 6.4 | 2.0 | | | | |

06863900 NF BIG C NR VICTORIA, KS (LAT 38 53 12N LONG 099 14 21W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|
| MAY 1984<br>03... | 16:50 | 1.7 | 15.0 |

## MISCELLANEOUS WATER TEMPERATURES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### 06864050 SMOKY HILL R NR BUNKER HILL, KS (LAT 38 47 38N LONG 098 46 50W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 18... | 17:00 | 0.46 | 18.0 | 03... | 10:10 | 193 | 13.5 |
| NOV | | | | JUN | | | |
| 16... | 12:05 | 2.5 | 9.5 | 05... | 15:40 | 22 | 31.5 |
| JAN 1984 | | | | AUG | | | |
| 04... | 16:50 | 3.4 | 0.0 | 14... | 10:30 | 3.1 | 27.0 |
| FEB | | | | SEP | | | |
| 08... | 10:35 | 21 | 5.5 | 22... | 10:00 | 1.2 | 20.0 |
| MAR | | | | | | | |
| 29... | 16:30 | 21 | 12.5 | | | | |

### 06864300 SMOKY HILL R TR AT DORRANCE, KS (LAT 38 50 52N LONG 098 35 44W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|
| MAY 1984 | | | |
| 02... | 17:55 | 1.2 | 17.5 |

### 06864500 SMOKY HILL R AT ELLSWORTH, KS (LAT 38 43 36N LONG 098 14 00W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | MAY 1984 | | | |
| 14... | 14:30 | 13 | 8.5 | 10... | 13:55 | 212 | 17.0 |
| JAN 1984 | | | | JUN | | | |
| 05... | 14:40 | 12 | 1.0 | 19... | 14:30 | 38 | 27.0 |
| FEB | | | | SEP | | | |
| 09... | 14:25 | 50 | 6.5 | 22... | 10:00 | 1.2 | 20.0 |
| MAR | | | | 24... | 09:50 | 5.7 | 20.0 |
| 29... | 09:40 | 57 | 8.0 | | | | |

### 06865500 SMOKY HILL R NR LANGLEY, KS (LAT 38 36 38N LONG 097 57 04W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | MAY 1984 | | | |
| 17... | 12:00 | 13 | 15.0 | 03... | 09:55 | 182 | 13.5 |
| JAN 1984 | | | | JUN | | | |
| 05... | 11:55 | 12 | 5.0 | 14... | 10:10 | 131 | 25.0 |
| FEB | | | | AUG | | | |
| 09... | 10:45 | 15 | 5.0 | 29... | 07:45 | 49 | 25.0 |
| MAR | | | | | | | |
| 29... | 09:50 | 5.2 | 9.5 | | | | |

### 06866500 SMOKY HILL R NR MENTOR, KS (LAT 38 47 54N LONG 097 34 28W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | MAY 1984 | | | |
| 16... | 10:40 | 32 | 8.0 | 03... | 17:00 | 646 | 13.5 |
| JAN 1984 | | | | JUN | | | |
| 05... | 15:10 | 32 | 0.0 | 14... | 17:20 | 218 | 27.5 |
| FEB | | | | AUG | | | |
| 07... | 17:15 | 69 | 5.0 | 29... | 11:20 | 66 | 27.0 |
| MAR | | | | | | | |
| 29... | 14:45 | 149 | 8.5 | | | | |

### 06866900 SALINE R NR WAKEENEY, KS (LAT 39 06 22N LONG 099 52 10W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|
| JUN 1984 | | | |
| 21... | 10:15 | 0.21 | 27.0 |

### 06867000 SALINE R NR RUSSELL, KS (LAT 38 58 00N LONG 098 51 20W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | MAY 1984 | | | |
| 16... | 10:25 | 1.9 | 7.0 | 03... | 13:05 | 151 | 15.5 |
| JAN 1984 | | | | JUN | | | |
| 05... | 09:45 | 2.0 | 0.0 | 05... | 10:25 | 42 | 22.5 |
| FEB | | | | AUG | | | |
| 08... | 13:15 | 11 | 7.0 | 14... | 13:00 | 4.6 | 28.0 |
| MAR | | | | SEP | | | |
| 29... | 14:15 | 32 | 12.5 | 22... | 12:15 | 3.1 | 20.0 |
| APR | | | | | | | |
| 03... | 13:35 | 200 | 8.0 | | | | |

## MISCELLANEOUS WATER TEMPERATURES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### 06868200 SALINE R AT WILSON DAM, KS (LAT 38 58 35N LONG 098 29 20W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983<br>19... | 11:40 | 10 | 17.0 | MAY 1984<br>10... | 10:50 | 21 | 15.0 |
| NOV<br>15... | 09:40 | 12 | 10.5 | JUN<br>19... | 16:45 | 21 | 25.5 |
| FEB 1984<br>09... | 12:00 | 13 | 8.5 | AUG<br>13... | 12:15 | 20 | 25.0 |
| MAR<br>28... | 17:35 | 9.6 | 8.0 | SEP<br>24... | 12:25 | 21 | 21.0 |

### 06869500 SALINE R AT TESCOTT, KS (LAT 39 00 15N LONG 097 52 26W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983<br>12... | 10:00 | 26 | 13.0 | MAY 1984<br>02... | 18:40 | 995 | 13.0 |
| NOV<br>15... | 16:15 | 26 | 8.0 | JUN<br>13... | 18:40 | 75 | 25.0 |
| JAN 1984<br>04... | 17:25 | 26 | 0.5 | AUG<br>02... | 09:45 | 44 | 24.0 |
| FEB<br>08... | 15:20 | 44 | 1.0 | SEP<br>13... | 09:25 | 23 | 22.0 |
| MAR<br>28... | 17:10 | 72 | 6.5 | | | | |

### 06870200 SMOKY HILL R AT NEW CAMBRIA, KS (LAT 38 51 49N LONG 097 28 58W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983<br>16... | 12:40 | 77 | 7.5 | MAY 1984<br>07... | 19:25 | 5320 | 13.5 |
| JAN 1984<br>03... | 16:00 | 60 | 0.5 | JUN<br>01... | 13:35 | 348 | 28.0 |
| FEB<br>07... | 14:15 | 193 | 3.0 | SEP<br>12... | 09:45 | 86 | 21.0 |
| MAR<br>29... | 16:40 | 387 | 8.0 | | | | |

### 06871000 NF SOLOMON R AT GLADE, KS (LAT 39 40 40N LONG 099 18 30W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983<br>04... | 14:00 | 0.1 | 21.0 | MAY 1984<br>03... | 17:15 | 50 | 16.0 |
| NOV<br>21... | 14:25 | 0.01 | 8.0 | JUN<br>14... | 13:05 | 16 | 27.5 |
| MAR 1984<br>27... | 15:00 | 19 | 8.5 | JUL<br>17... | 17:45 | 0.65 | 31.5 |

### 06871500 BOW C NR STOCKTON, KS (LAT 39 33 46N LONG 099 17 04W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983<br>21... | 12:55 | 0.03 | 5.0 | JUN 1984<br>14... | 15:00 | 9.2 | 25.0 |
| MAR 1984<br>27... | 13:25 | 12 | 6.5 | JUL<br>17... | 19:30 | 5.3 | 26.0 |
| APR<br>02... | 20:15 | 41 | 6.5 | 26... | 09:50 | 3.7 | 20.0 |
| MAY<br>04... | 08:05 | 22 | 10.5 | SEP<br>13... | 09:10 | 0.29 | 20.0 |

### 06872500 NF SOLOMON R AT PORTIS, KS (LAT 39 33 15N LONG 098 41 31W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983<br>05... | 09:50 | 8.0 | 13.0 | MAY 1984<br>09... | 17:10 | 165 | 16.0 |
| 05... | 11:30 | 8.0 | 13.0 | JUN<br>20... | 11:35 | 44 | 24.5 |
| NOV<br>15... | 15:30 | 8.6 | 7.5 | JUL<br>26... | 16:15 | 4.5 | 30.0 |
| JAN 1984<br>05... | 09:50 | 13 | 1.0 | SEP<br>13... | 09:10 | 3.3 | 22.0 |
| FEB<br>08... | 10:35 | 45 | 0.5 | | | | |
| MAR<br>28... | 13:00 | 113 | 6.0 | | | | |

## MISCELLANEOUS WATER TEMPERATURES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| 06873000 | SF SOLOMON R AB WEBSTER RE, KS (LAT 39 22 26N LONG 099 34 54W) | | | | | | |
| DEC 1983 | | | | APR 1984 | | | |
| 07... | 09:20 | 0.06 | 1.5 | 03... | 10:25 | 96 | 6.0 |
| JAN 1984 | | | | MAY | | | |
| 04... | 12:05 | 0.01 | 1.0 | 09... | 11:30 | 89 | 15.0 |
| FEB | | | | JUN | | | |
| 07... | 14:50 | 1.2 | 4.5 | 20... | 17:15 | 13 | 26.5 |
| MAR | | | | JUL | | | |
| 27... | 16:40 | 45 | 9.0 | 27... | 10:30 | 0.17 | 24.0 |
| 06873460 | SF SOLOMON R AT WOODSTON, KS (LAT 39 26 23N LONG 099 06 05W) | | | | | | |
| OCT 1983 | | | | MAY 1984 | | | |
| 04... | 09:50 | 0.28 | 18.5 | 09... | 13:45 | 76 | 16.5 |
| FEB 1984 | | | | JUN | | | |
| 08... | 09:10 | 1.8 | 4.0 | 20... | 15:00 | 37 | 26.5 |
| MAR | | | | SEP | | | |
| 28... | 08:05 | 13 | 7.0 | 13... | 11:05 | 0.15 | 22.0 |
| APR | | | | | | | |
| 03... | 08:30 | 131 | 6.5 | | | | |
| 06874000 | SF SOLOMON R AT OSBORNE, KS (LAT 39 25 43N LONG 098 41 40W) | | | | | | |
| OCT 1983 | | | | MAY 1984 | | | |
| 05... | 11:30 | 3.2 | 15.5 | 10... | 08:20 | 149 | 15.0 |
| NOV | | | | JUN | | | |
| 15... | 12:40 | 5.1 | 7.0 | 20... | 09:20 | 79 | 24.0 |
| JAN 1984 | | | | JUL | | | |
| 05... | 11:40 | 9.1 | 0.5 | 26... | 14:15 | 1.6 | 27.5 |
| FEB | | | | SEP | | | |
| 09... | 09:20 | 17 | 2.0 | 13... | 10:05 | 0.68 | 22.0 |
| MAR | | | | | | | |
| 28... | 15:00 | 24 | 7.0 | | | | |
| 06875900 | SOLOMON R NR GLEN ELDER, KS (LAT 39 28 27N LONG 098 16 58W) | | | | | | |
| NOV 1983 | | | | MAY 1984 | | | |
| 15... | 11:15 | 22 | 9.0 | 02... | 12:20 | 590 | 12.0 |
| JAN 1984 | | | | JUN | | | |
| 04... | 11:15 | 29 | 2.0 | 13... | 12:30 | 1040 | 24.0 |
| FEB | | | | | | | |
| 08... | 10:30 | 55 | 1.0 | | | | |
| 06876700 | SALT C NR ADA, KS (LAT 39 08 30N LONG 097 50 10W) | | | | | | |
| OCT 1983 | | | | MAY 1984 | | | |
| 12... | 11:50 | 31 | 13.0 | 02... | 16:35 | 702 | 15.0 |
| NOV | | | | JUN | | | |
| 15... | 14:15 | 4.8 | 8.0 | 13... | 16:30 | 29 | 27.0 |
| JAN 1984 | | | | AUG | | | |
| 04... | 15:15 | 15 | 0.0 | 02... | 12:00 | 7.9 | 25.0 |
| FEB | | | | SEP | | | |
| 08... | 13:10 | 24 | 3.5 | 13... | 11:50 | 1.7 | 21.0 |
| MAR | | | | | | | |
| 28... | 15:15 | 50 | 6.5 | | | | |
| 06876900 | SOLOMON R AT NILES, KS (LAT 38 55 09N LONG 097 29 34W) | | | | | | |
| NOV 1983 | | | | MAY 1984 | | | |
| 16... | 15:15 | 90 | 8.0 | 03... | 13:45 | 2660 | 13.5 |
| JAN 1984 | | | | JUN | | | |
| 03... | 17:15 | 72 | 0.0 | 14... | 15:30 | 1310 | 27.0 |
| FEB | | | | AUG | | | |
| 07... | 12:40 | 437 | 2.5 | 01... | 11:45 | 161 | 25.0 |
| MAR | | | | SEP | | | |
| 30... | 11:25 | 379 | 7.5 | 12... | 12:00 | 106 | 21.0 |

### 06877600 SMOKY HILL R AT ENTERPRISE, KS (LAT 38 54 24N LONG 097 07 12W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | MAY 1984 | | | |
| 16... | 15:00 | 249 | 7.0 | 15... | 14:50 | 1760 | 17.0 |
| DEC | | | | JUN | | | |
| 19... | 16:00 | 227 | 0.0 | 28... | 09:40 | 2970 | 26.5 |
| FEB 1984 | | | | AUG | | | |
| 06... | 15:00 | 740 | 0.0 | 15... | 10:30 | 323 | 26.0 |
| APR | | | | SEP | | | |
| 04... | 15:00 | 10000 | 7.0 | 19... | 11:55 | 255 | 19.0 |
| 05... | 09:20 | 10600 | 8.0 | | | | |

### 06878000 CHAPMAN C NR CHAPMAN, KS (LAT 39 01 52N LONG 097 02 24W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | MAY 1984 | | | |
| 15... | 09:35 | 19 | 7.0 | 16... | 10:00 | 110 | 13.5 |
| DEC | | | | JUN | | | |
| 20... | 09:40 | 19 | 0.0 | 25... | 15:40 | 78 | 26.0 |
| FEB 1984 | | | | AUG | | | |
| 07... | 09:35 | 50 | 0.0 | 15... | 09:35 | 20 | 26.0 |
| APR | | | | SEP | | | |
| 05... | 12:55 | 1310 | 8.0 | 25... | 10:10 | 21 | 18.0 |

### 06879100 KANSAS R AT FORT RILEY, KS (LAT 39 03 09N LONG 096 46 33W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | MAY 1984 | | | |
| 29... | 10:45 | 1610 | 7.5 | 15... | 10:20 | 6690 | 14.5 |
| JAN 1984 | | | | JUN | | | |
| 09... | 09:55 | 1490 | 2.0 | 25... | 12:05 | 5810 | 25.5 |
| FEB | | | | AUG | | | |
| 22... | 12:25 | 1190 | 11.5 | 16... | 10:30 | 786 | 26.0 |
| APR | | | | | | | |
| 06... | 11:10 | 14000 | 7.5 | | | | |

### 06879650 KINGS C NR MANHATTAN, KS (LAT 39 06 07N LONG 096 35 42W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | MAY 1984 | | | |
| 29... | 14:25 | 2.6 | 8.0 | 14... | 10:20 | 5.4 | 13.5 |
| JAN 1984 | | | | JUN | | | |
| 09... | 12:35 | 1.3 | 1.5 | 13... | 12:30 | 10 | 17.5 |
| FEB | | | | 16... | 12:00 | 19 | 17.0 |
| 23... | 09:00 | 1.7 | 9.5 | 27... | 16:40 | 8.7 | 19.0 |
| APR | | | | JUL | | | |
| 02... | 10:40 | 38 | 8.5 | 08... | 09:50 | 3.9 | 18.0 |

### 06882510 BIG BLUE R AT MARYSVILLE, KS (LAT 39 50 32N LONG 096 39 39W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| JUN 1984 | | | | JUL 1984 | | | |
| 15... | 14:10 | 39600 | 24.5 | 17... | 08:25 | 837 | 26.0 |
| 19... | 12:10 | 16200 | 24.5 | SEP | | | |
| 22... | 12:10 | 6240 | 24.5 | 04... | 16:40 | 412 | 19.0 |

### 06884200 MILL C AT WASHINGTON, KS (LAT 39 48 50N LONG 097 02 20W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 05... | 12:30 | 5.7 | 18.0 | 08... | 12:25 | 224 | 11.5 |
| DEC | | | | JUN | | | |
| 01... | 10:00 | 17 | 0.5 | 20... | 07:50 | 123 | 22.5 |
| JAN 1984 | | | | JUL | | | |
| 10... | 15:00 | 49 | 0.5 | 16... | 18:40 | 44 | 25.0 |
| FEB | | | | SEP | | | |
| 09... | 14:35 | 105 | 0.5 | 04... | 13:20 | 8.3 | 19.0 |
| MAR | | | | | | | |
| 27... | 10:10 | 303 | 7.5 | | | | |

06884400 L BLUE R NR BARNES, KS (LAT 39 46 33N LONG 096 51 29W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| DEC 1983 | | | | JUN 1984 | | | |
| 01... | 13:25 | 184 | 1.0 | 15... | 17:00 | 14700 | 24.5 |
| 08... | 11:05 | 175 | 0.5 | 19... | 15:20 | 3860 | 25.0 |
| FEB 1984 | | | | JUL | | | |
| 09... | 11:10 | 1060 | 1.0 | 16... | 15:35 | 500 | 29.5 |
| MAR | | | | SEP | | | |
| 27... | 13:00 | 1420 | 7.5 | 04... | 11:10 | 254 | 20.0 |
| MAY | | | | | | | |
| 07... | 16:00 | 1730 | 13.0 | | | | |

06884700 BIG BLUE R AT BLUE RAPIDS, KS (LAT 39 41 20N LONG 096 38 30W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | NOV 1983 | | | |
| 20... | 11:20 | 1160 | 14.5 | 30... | 13:50 | -- | 3.0 |

06885500 BLACK VERMILLION R NR FRANKFORT, KS (LAT 39 41 03N LONG 096 26 15W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 20... | 15:45 | 27 | 13.0 | 07... | 13:00 | 238 | 12.5 |
| NOV | | | | JUN | | | |
| 30... | 11:45 | 98 | 3.5 | 12... | 13:20 | 759 | 21.0 |
| FEB 1984 | | | | JUL | | | |
| 21... | 10:25 | 5.5 | 3.0 | 16... | 12:05 | 55 | 25.5 |
| MAR | | | | SEP | | | |
| 26... | 15:50 | 1430 | 7.5 | 05... | 08:55 | 13 | 19.0 |

06887000 BIG BLUE R NR MANHATTAN, KS (LAT 39 14 14N LONG 096 34 16W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 19... | 14:00 | 2830 | 16.0 | 17... | 11:10 | 15700 | 16.5 |
| DEC | | | | JUL | | | |
| 02... | 10:25 | 1930 | 6.0 | 05... | 11:40 | 16100 | 23.5 |
| JAN 1984 | | | | 16... | 14:05 | 23800 | 27.0 |
| 09... | 15:00 | 964 | 1.0 | AUG | | | |
| FEB | | | | 13... | 12:00 | 512 | 27.5 |
| 23... | 13:25 | 3030 | 4.5 | SEP | | | |
| APR | | | | 18... | 12:00 | 26 | 18.0 |
| 03... | 09:55 | 8520 | 5.5 | | | | |

06887500 KANSAS R AT WAMEGO, KS (LAT 39 11 52N LONG 096 18 16W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | APR 1984 | | | |
| 20... | 11:50 | 4660 | 14.0 | 27... | 11:00 | 20700 | 12.0 |
| NOV | | | | JUN | | | |
| 14... | 12:40 | 1950 | 10.5 | 14... | 11:40 | 8120 | 28.5 |
| FEB 1984 | | | | JUL | | | |
| 13... | 11:50 | 9350 | 4.5 | 11... | 10:30 | 29300 | 25.0 |
| MAR | | | | | | | |
| 16... | 10:40 | 2980 | 6.0 | | | | |

06888350 KANSAS R NR BELVUE, KS (LAT 39 11 15N LONG 096 08 50W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | APR 1984 | | | |
| 20... | 11:30 | 4340 | 13.5 | 30... | 13:55 | 44700 | 11.5 |
| NOV | | | | JUN | | | |
| 30... | 14:35 | 5050 | 3.0 | 25... | 11:05 | 11200 | 25.0 |
| JAN 1984 | | | | AUG | | | |
| 05... | 16:15 | 1880 | 0.0 | 06... | 11:15 | 3030 | 28.5 |
| FEB | | | | SEP | | | |
| 14... | 13:05 | 10300 | 5.0 | 12... | 10:45 | 1300 | 24.0 |
| MAR | | | | | | | |
| 25... | 12:20 | 16400 | 3.0 | | | | |

06888400 KANSAS R AT MAPLE HILL, KS (LAT 39 07 14N LONG 096 01 29W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| JUL 1984 | | | | | | | |
| 05... | 13:50 | 22000 | 26.0 | | | | |

06888500 MILL C NR PAXICO, KS (LAT 39 03 44N LONG 096 10 52W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 17... | 11:25 | 10 | 13.5 | 04... | 12:45 | 680 | 16.0 |
| NOV | | | | JUN | | | |
| 19... | 11:45 | 57 | 9.5 | 25... | 14:00 | 260 | 22.5 |
| JAN 1984 | | | | AUG | | | |
| 09... | 13:05 | 376 | 1.0 | 03... | 09:55 | 28 | 27.0 |
| FEB | | | | SEP | | | |
| 13... | 14:55 | 83 | 8.0 | 12... | 13:45 | 11 | 27.0 |

06889000 KANSAS R AT TOPEKA, KS (LAT 39 04 00N LONG 095 38 58W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | APR 1984 | | | |
| 14... | 14:55 | 2500 | 13.5 | 17... | 10:30 | 15200 | 11.0 |
| NOV | | | | MAY | | | |
| 07... | 10:30 | 1950 | 15.0 | 01... | 11:30 | 35900 | 12.5 |
| 30... | 10:55 | 5020 | 2.0 | 29... | 14:00 | 24300 | 18.5 |
| JAN 1984 | | | | AUG | | | |
| 04... | 14:20 | 1880 | 0.5 | 08... | 10:50 | 3170 | 27.5 |
| FEB | | | | SEP | | | |
| 18... | 12:15 | 10300 | 5.0 | 11... | 11:10 | 1230 | 23.0 |
| MAR | | | | | | | |
| 06... | 10:40 | 3940 | 5.0 | | | | |
| 29... | 14:50 | 17500 | 4.5 | | | | |

06889100 SOLDIER C NR GOFF, KS (LAT 39 37 27N LONG 095 57 57W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | MAY 1984 | | | |
| 22... | 10:10 | 0.08 | 7.5 | 08... | 16:00 | 0.59 | 17.0 |
| JAN 1984 | | | | JUN | | | |
| 04... | 15:45 | 0.05 | 0.0 | 19... | 11:50 | 0.42 | 21.0 |
| FEB | | | | JUL | | | |
| 15... | 10:50 | 1.2 | 3.0 | 17... | 14:20 | 0.13 | 24.5 |
| | | | | 30... | 13:30 | 0.03 | 22.0 |
| MAR | | | | | | | |
| 28... | 17:25 | 4.2 | 3.5 | | | | |

06889120 SOLDIER C NR BANCROFT, KS (LAT 39 35 42N LONG 095 58 17W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 12... | 16:20 | 0.22 | 12.0 | 08... | 14:30 | 3.5 | 15.0 |
| NOV | | | | JUN | | | |
| 22... | 11:55 | 0.83 | 8.0 | 19... | 14:30 | 3.7 | 22.0 |
| JAN 1984 | | | | JUL | | | |
| 04... | 14:20 | 1.4 | 0.0 | 17... | 16:20 | 1.0 | 29.0 |
| FEB | | | | SEP | | | |
| 16... | 08:40 | 23 | 5.0 | 05... | 13:40 | 0.04 | 19.0 |
| MAR | | | | | | | |
| 28... | 15:45 | 31 | 3.5 | | | | |

06889140 SOLDIER C NR SOLDIER, KS (LAT 39 33 57N LONG 095 57 45W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 13... | 09:50 | 0.66 | 9.0 | 08... | 12:50 | 6.8 | 13.0 |
| NOV | | | | JUN | | | |
| 21... | 15:30 | 1.5 | 7.5 | 19... | 16:45 | 7.2 | 22.0 |
| JAN 1984 | | | | JUL | | | |
| 04... | 12:40 | 2.1 | 0.0 | 17... | 17:40 | 2.6 | 28.0 |
| FEB | | | | SEP | | | |
| 16... | 10:00 | 34 | 5.5 | 06... | 11:30 | 0.42 | 20.0 |
| MAR | | | | | | | |
| 28... | 13:50 | 61 | 3.5 | | | | |

06889160 SOLDIER C NR CIRCLEVILLE, KS (LAT 39 27 47N LONG 095 57 00W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 13... | 13:05 | 2.7 | 10.0 | 08... | 11:50 | 30 | 11.0 |
| NOV | | | | JUN | | | |
| 21... | 13:40 | 3.5 | 7.0 | 20... | 13:05 | 673 | 22.0 |
| JAN 1984 | | | | JUL | | | |
| 04... | 11:00 | 6.4 | 0.0 | 17... | 18:40 | 8.7 | 28.5 |
| FEB | | | | SEP | | | |
| 16... | 11:40 | 97 | 5.5 | 06... | 09:05 | 1.0 | 20.0 |
| MAR | | | | | | | |
| 28... | 11:30 | 102 | 4.5 | | | | |

06889200 SOLDIER C NR DELIA, KS (LAT 39 12 08N LONG 095 52 25W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAR 1984 | | | |
| 13... | 15:40 | 12 | 12.0 | 30... | 12:35 | 194 | 8.5 |
| NOV | | | | MAY | | | |
| 21... | 11:10 | 14 | 6.0 | 09... | 13:55 | 117 | 14.0 |
| JAN 1984 | | | | JUN | | | |
| 05... | 12:50 | 26 | 0.0 | 21... | 13:30 | 3070 | 22.0 |
| FEB | | | | AUG | | | |
| 17... | 11:15 | 135 | 5.5 | 29... | 13:00 | 5.5 | 26.5 |

06889500 SOLDIER C NR TOPEKA, KS (LAT 39 06 00N LONG 095 43 27W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAR 1984 | | | |
| 14... | 10:15 | 20 | 12.0 | 26... | 13:25 | 1600 | 5.5 |
| NOV | | | | MAY | | | |
| 29... | 14:50 | 252 | 2.0 | 04... | 15:45 | 304 | 16.0 |
| JAN 1984 | | | | JUN | | | |
| 05... | 15:10 | 52 | 0.0 | 22... | 10:50 | 6680 | 26.5 |
| FEB | | | | AUG | | | |
| 17... | 13:45 | 242 | 7.0 | 29... | 09:25 | 13 | 25.5 |

06889550 INDIAN C NR TOPEKA, KS (LAT 39 07 27N LONG 095 39 05W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|
| JUN 1984 | | | |
| 21... | 13:45 | 930 | 21.0 |

06890100 DELAWARE R NR MUSCOTAH, KS (LAT 39 31 17N LONG 095 31 57W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 11... | 17:10 | 66 | 14.5 | 07... | 11:05 | 330 | 12.0 |
| DEC | | | | JUN | | | |
| 01... | 10:40 | 66 | 0.5 | 27... | 15:05 | 337 | 25.0 |
| JAN 1984 | | | | 29... | 12:50 | 3230 | 21.0 |
| 05... | 11:15 | 57 | 0.0 | AUG | | | |
| FEB | | | | 02... | 10:30 | 30 | 27.5 |
| 29... | 10:45 | 97 | 1.5 | SEP | | | |
| MAR | | | | 13... | 14:00 | 16 | 25.5 |
| 29... | 13:40 | 634 | 7.0 | | | | |

06890900 DELAWARE R BL PERRY DAM, KS (LAT 39 06 51N LONG 095 25 33W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| FEB 1984 | | | | MAR 1984 | | | |
| 22... | 11:35 | 341 | 4.5 | 12... | 12:40 | 376 | 4.0 |

06891000 KANSAS R AT LECOMPTON, KS (LAT 39 03 07N LONG 095 23 15W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | APR 1984 | | | |
| 07... | 14:10 | 2370 | 15.0 | 23... | 13:45 | 25500 | 10.5 |
| FEB 1984 | | | | JUN | | | |
| 08... | 12:40 | 11000 | 3.0 | 04... | 10:20 | 13100 | 23.0 |
| MAR | | | | AUG | | | |
| 13... | 10:55 | 4020 | 5.0 | 27... | 09:40 | 2940 | 25.5 |

### 06891500 WAKARUSA R NR LAWRENCE, KS (LAT 38 54 40N LONG 095 15 37W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | MAY 1984 | | | |
| 17... | 14:45 | 25 | 9.0 | 15... | 14:25 | 1010 | 16.0 |
| JAN 1984 | | | | JUN | | | |
| 03... | 14:30 | 6.7 | 0.5 | 04... | 08:45 | 489 | 20.0 |
| FEB | | | | 26... | 09:45 | 67 | 23.0 |
| 21... | 10:35 | 526 | 1.5 | AUG | | | |
| MAR | | | | 07... | 10:00 | 38 | 27.5 |
| 14... | 14:45 | 249 | 5.0 | SEP | | | |
| 29... | 14:00 | 1320 | 6.0 | 10... | 13:30 | 27 | 25.5 |

### 06891850 STRANGER CR AT EASTON, KS (LAT 39 20 47N LONG 095 06 31W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|
| MAR 1984 | | | |
| 27... | 14:40 | 1150 | 5.0 |

### 06892000 STRANGER C NR TONGANOXIE, KS (LAT 39 06 59N LONG 095 00 39W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 11... | 11:05 | 0.84 | 15.0 | 10... | 14:35 | 167 | 17.5 |
| NOV | | | | JUN | | | |
| 29... | 10:45 | 1590 | 3.5 | 26... | 12:25 | 159 | 27.0 |
| JAN 1984 | | | | AUG | | | |
| 05... | 14:35 | 34 | 0.0 | 02... | 15:15 | 8.2 | 29.5 |
| FEB | | | | SEP | | | |
| 29... | 14:45 | 79 | 2.5 | 13... | 09:45 | 3.5 | 24.5 |
| MAR | | | | | | | |
| 27... | 10:30 | 1260 | 5.0 | | | | |

### 06892350 KANSAS R AT DESOTO, KS (LAT 38 59 00N LONG 094 57 52W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 13... | 11:40 | 3090 | 11.5 | 01... | 11:00 | 64200 | 12.5 |
| NOV | | | | 31... | 10:10 | 26900 | 19.0 |
| 07... | 14:55 | 2070 | 14.5 | JUN | | | |
| 22... | 10:40 | 3120 | 11.0 | 28... | 11:25 | 24400 | 27.5 |
| JAN 1984 | | | | JUL | | | |
| 04... | 13:35 | 2080 | 0.5 | 09... | 11:10 | 36800 | 25.5 |
| FEB | | | | AUG | | | |
| 14... | 11:50 | 13100 | 7.0 | 09... | 10:20 | 3460 | 26.0 |
| MAR | | | | 23... | 09:30 | 2540 | 24.5 |
| 09... | 10:05 | 4810 | 3.0 | SEP | | | |
| 30... | 12:00 | 24600 | 7.0 | 10... | 10:40 | 1860 | 24.5 |
| APR | | | | | | | |
| 17... | 10:50 | 21000 | 11.5 | | | | |

### 06893080 BLUE R NR STANLEY, KS (LAT 38 49 45N LONG 094 40 31W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | APR 1984 | | | |
| 17... | 11:20 | 3.0 | 7.0 | 30... | 11:00 | 141 | 11.5 |
| DEC | | | | JUN | | | |
| 20... | 10:00 | 7.8 | 0.0 | 08... | 10:30 | 4.7 | 22.0 |
| FEB 1984 | | | | JUL | | | |
| 04... | 16:25 | 12 | 1.0 | 10... | 13:20 | 7.5 | 27.0 |
| MAR | | | | | | | |
| 14... | 11:00 | 31 | 5.5 | | | | |

### 06893300 INDIAN C AT OVERLAND PARK, KS (LAT 38 56 30N LONG 094 40 10W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | APR 1984 | | | |
| 17... | 14:45 | 8.8 | 9.0 | 30... | 14:30 | 63 | 14.5 |
| 21... | 12:05 | 7.2 | 10.5 | JUN | | | |
| DEC | | | | 08... | 12:20 | 10 | 25.0 |
| 27... | 10:15 | 2.7 | 0.0 | 21... | 11:10 | 453 | 21.5 |
| FEB 1984 | | | | JUL | | | |
| 04... | 13:25 | 14 | 1.0 | 10... | 10:25 | 8.0 | 27.0 |
| MAR | | | | AUG | | | |
| 14... | 14:20 | 29 | 7.5 | 29... | 10:00 | 6.4 | 25.5 |

06910800 MARAIS DES CYGNES R NR READING, KS (LAT 38 34 00N LONG 095 57 50W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | APR 1984 | | | |
| 09... | 14:15 | 1.2 | 11.0 | 25... | 15:50 | 126 | 16.5 |
| DEC | | | | JUN | | | |
| 29... | 12:40 | 12 | 0.0 | 08... | 11:15 | 224 | 24.0 |
| JAN 1984 | | | | JUL | | | |
| 28... | 16:15 | 55 | 0.5 | 24... | 14:25 | 3.8 | 28.0 |
| MAR | | | | | | | |
| 15... | 10:45 | 50 | 9.5 | | | | |

06911500 SALT C NR LYNDON, KS (LAT 38 36 32N LONG 095 38 17W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | APR 1984 | | | |
| 10... | 16:30 | 4.1 | 8.0 | 24... | 14:35 | 87 | 12.5 |
| DEC | | | | JUN | | | |
| 29... | 16:10 | 4.6 | 0.0 | 07... | 14:00 | 4.6 | 25.0 |
| JAN 1984 | | | | JUL | | | |
| 31... | 09:25 | 28 | 0.0 | 24... | 17:50 | 0.92 | 29.5 |
| MAR | | | | AUG | | | |
| 13... | 10:50 | 26 | 5.0 | 03... | 10:30 | 0.45 | 24.0 |

06911900 DRAGOON C NR BURLINGAME, KS (LAT 38 42 30N LONG 095 50 20W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | APR 1984 | | | |
| 10... | 11:50 | 11 | 10.0 | 26... | 09:35 | 117 | 11.0 |
| DEC | | | | JUN | | | |
| 20... | 13:45 | 7.1 | 0.5 | 07... | 10:20 | 3670 | 21.0 |
| JAN 1984 | | | | JUL | | | |
| 28... | 12:30 | 39 | 0.5 | 27... | 15:55 | 1.2 | 29.0 |
| MAR | | | | | | | |
| 12... | 12:25 | 29 | 4.0 | | | | |

06912500 HUNDRED AND TEN MILE C NR QUENEMO, KS (LAT 38 38 41N LONG 095 33 34W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | APR 1984 | | | |
| 15... | 13:50 | 17 | 9.0 | 25... | 10:05 | 1010 | 11.0 |
| DEC | | | | JUL | | | |
| 22... | 13:15 | 106 | 1.0 | 12... | 13:20 | 0.47 | 27.0 |
| JAN 1984 | | | | 27... | 14:15 | 20 | 28.0 |
| 31... | 13:40 | 261 | 3.5 | | | | |
| MAR | | | | | | | |
| 13... | 15:40 | 22 | 5.5 | | | | |

06913000 MARAIS DES CYGNES R NR POMONA, KS (LAT 38 35 03N LONG 095 27 12W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | APR 1984 | | | |
| 16... | 12:20 | 54 | 7.0 | 26... | 10:15 | 2430 | 13.0 |
| DEC | | | | JUN | | | |
| 22... | 10:35 | 190 | 0.5 | 07... | 13:45 | 144 | 22.0 |
| FEB 1984 | | | | JUL | | | |
| 01... | 10:40 | 388 | 2.0 | 27... | 11:20 | 50 | 26.0 |
| MAR | | | | | | | |
| 14... | 12:00 | 352 | 5.0 | | | | |

06913500 MARAIS DES CYGNES R NR OTTAWA, KS (LAT 38 37 00N LONG 095 15 25W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983 | | | | APR 1984 | | | |
| 08... | 16:40 | 50 | 13.0 | 26... | 13:50 | 2430 | 15.0 |
| DEC | | | | JUN | | | |
| 28... | 13:15 | 210 | 0.5 | 07... | 10:00 | 149 | 23.0 |
| JAN 1984 | | | | JUL | | | |
| 30... | 14:30 | 266 | 1.0 | 10... | 16:50 | 178 | 29.5 |
| MAR | | | | AUG | | | |
| 13... | 17:15 | 728 | 5.0 | 30... | 09:40 | 23 | 27.0 |

| DATE | TIME | STREAMFLOW, INSTANTANECUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| 06914000 | | POTTAWATOMIE C NR GARNETT, KS (LAT 38 20 01N LONG 095 14 55W) | | | | | |
| DEC 1983 | | | | MAY 1984 | | | |
| 05... | 13:05 | 204 | 4.0 | 24... | 09:25 | 38 | 19.0 |
| JAN 1984 | | | | JUN | | | |
| 10... | 11:55 | 154 | 0.0 | 19... | 13:20 | 46 | 26.5 |
| MAR | | | | JUL | | | |
| 06... | 10:05 | 224 | 5.5 | 23... | 16:35 | 1.4 | 28.0 |
| APR | | | | | | | |
| 13... | 11:25 | 932 | 12.0 | | | | |
| 06915000 | | BIG BULL C NR HILLSDALE, KS (LAT 38 38 12N LONG 094 53 29W) | | | | | |
| OCT 1983 | | | | APR 1984 | | | |
| 28... | 11:40 | 13 | 14.5 | 19... | 11:45 | 392 | 9.0 |
| DEC | | | | MAY | | | |
| 09... | 12:05 | 505 | 3.0 | 24... | 12:50 | 6.5 | 23.0 |
| JAN 1984 | | | | JUL | | | |
| 13... | 13:25 | 7.0 | 2.0 | 23... | 12:20 | 1030 | 26.5 |
| MAR | | | | | | | |
| 06... | 14:45 | 90 | 6.0 | | | | |
| 06916600 | | MARAIS DES CYGNES R NR KS-MO ST LINE, KS (LAT 38 13 21N LONG 094 40 04 | | | | | |
| OCT 1983 | | | | MAY 1984 | | | |
| 24... | 11:50 | 274 | 13.5 | 21... | 10:30 | 1730 | 20.5 |
| DEC | | | | JUL | | | |
| 08... | 16:10 | 1920 | 3.0 | 10... | 10:15 | 1640 | 25.5 |
| JAN 1984 | | | | AUG | | | |
| 13... | 09:30 | 1610 | 0.0 | 14... | 10:15 | 3.6 | 27.0 |
| FEB | | | | SEP | | | |
| 28... | 10:40 | 3940 | 5.0 | 25... | 10:30 | 2.9 | 19.0 |
| APR | | | | | | | |
| 10... | 10:30 | 16700 | 10.5 | | | | |
| 06917000 | | L OSAGE R AT FULTON, KS (LAT 38 01 09N LONG 094 42 48W) | | | | | |
| OCT 1983 | | | | APR 1984 | | | |
| 24... | 14:20 | 28 | 12.5 | 10... | 13:45 | 852 | 11.0 |
| DEC | | | | MAY | | | |
| 08... | 13:05 | 164 | 3.0 | 21... | 12:50 | 97 | 21.0 |
| JAN 1984 | | | | JUL | | | |
| 12... | 16:45 | 90 | 0.0 | 10... | 12:40 | 14 | 28.0 |
| FEB | | | | AUG | | | |
| 28... | 13:50 | 1260 | 4.0 | 14... | 12:50 | 0.42 | 27.0 |
| 06917380 | | MARMATON R NR MARMATON, KS (LAT 37 49 03N LONG 094 47 30W) | | | | | |
| DEC 1983 | | | | MAY 1984 | | | |
| 08... | 09:50 | 170 | 3.0 | 21... | 15:30 | 50 | 22.0 |
| JAN 1984 | | | | JUL | | | |
| 12... | 14:30 | 74 | 0.0 | 10... | 15:45 | 12 | 30.0 |
| FEB | | | | AUG | | | |
| 28... | 16:50 | 1040 | 4.0 | 14... | 14:40 | 0.31 | 27.0 |
| APR | | | | SEP | | | |
| 10... | 16:35 | 632 | 12.0 | 25... | 13:45 | 0.03 | 18.0 |
| 06917400 | | MARMATON R TR NR FORT SCOTT, KS (LAT 37 47 26N LONG 094 47 47W) | | | | | |
| OCT 1983 | | | | | | | |
| 21... | 11:35 | 15 | 14.0 | | | | |

07137500 ARKANSAS R NR COOLIDGE, KS (LAT 38 01 34N LONG 102 00 41W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 05... | 14:15 | 140 | 17.0 | 03... | 14:15 | 150 | 16.5 |
| 19... | 12:25 | 185 | 14.0 | AUG | | | |
| NOV | | | | 10... | 10:15 | 141 | 19.0 |
| 01... | 11:30 | 151 | 12.0 | 24... | 10:30 | 540 | 22.0 |
| 17... | 14:40 | 105 | 9.5 | SEP | | | |
| DEC | | | | 14... | 15:05 | 457 | 19.0 |
| 12... | 13:15 | 169 | 7.0 | | | | |
| FEB 1984 | | | | | | | |
| 02... | 14:20 | 160 | 6.5 | | | | |

07138000 ARKANSAS R AT SYRACUSE, KS (LAT 37 57 58N LONG 101 45 23W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | DEC 1983 | | | |
| 19... | 11:10 | 212 | 14.0 | 30... | 12:30 | 51 | 0.5 |
| NOV | | | | SEP 1984 | | | |
| 17... | 11:35 | 95 | 7.0 | 04... | 11:30 | 454 | 21.0 |

07140000 ARKANSAS R NR KINSLEY, KS (LAT 37 55 33N LONG 099 22 31W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | AUG 1984 | | | |
| 11... | 18:10 | 1.7 | 17.0 | 09... | 13:25 | 1.5 | 30.0 |
| DEC | | | | SEP | | | |
| 05... | 12:30 | 1.6 | 1.0 | 24... | 14:40 | 0.41 | 22.5 |
| APR 1984 | | | | | | | |
| 17... | 14:15 | 26 | 11.0 | | | | |

07141300 ARKANSAS R AT GREAT BEND, KS (LAT 38 21 11N LONG 098 45 50W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 17... | 16:50 | 0.36 | 17.0 | 02... | 12:30 | 126 | 15.0 |
| NOV | | | | JUN | | | |
| 15... | 14:30 | 0.87 | 13.0 | 14... | 09:50 | 9.8 | 23.5 |
| JAN 1984 | | | | AUG | | | |
| 04... | 13:30 | 2.3 | 4.0 | 03... | 09:40 | 4.1 | 24.0 |
| FEB | | | | SEP | | | |
| 07... | 09:10 | 0.82 | 6.0 | 06... | 10:00 | 0.11 | 22.0 |
| MAR | | | | | | | |
| 30... | 14:35 | 7.7 | 12.0 | | | | |

07141780 WALNUT C NR RUSH CENTER, KS (LAT 38 28 07N LONG 099 22 07W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|
| JUN 1984 | | | |
| 12... | 15:10 | 0.87 | 26.0 |

07141900 WALNUT C AT ALBERT, KS (LAT 38 27 40N LONG 099 00 50W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| FEB 1984 | | | | JUN 1984 | | | |
| 07... | 10:00 | 0.01 | 2.0 | 14... | 12:25 | 20 | 21.5 |
| MAY | | | | | | | |
| 02... | 09:55 | 43 | 11.0 | | | | |

07142300 RATTLESNAKE C NR MACKSVILLE, KS (LAT 37 52 20N LONG 098 52 30W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | SEP 1984 | | | |
| 12... | 09:40 | 2.0 | 12.0 | 26... | 12:20 | 0.27 | 10.0 |
| DEC | | | | | | | |
| 05... | 14:25 | 4.3 | 1.0 | | | | |

07142570 RATTLESNAKE C AB L SALT MARSH NR HUDSON, KS (LAT 38 05 13N LONG 098 34 52W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|
| SEP 1984 | | | |
| 26... | 09:20 | 0.55 | 11.0 |

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**07142575 RATTLESNAKE C NR ZENITH, KS (LAT 38 06 01N LONG 098 30 32W)**

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | SEP 1984 | | | |
| 19... | 13:25 | 2.6 | 15.0 | 26... | 10:30 | 0.16 | 7.0 |
| AUG 1984 | | | | | | | |
| 15... | 12:45 | 0.96 | 32.0 | | | | |

**07142620 RATTLESNAKE C NR RAYMOND, KS (LAT 38 13 50N LONG 098 25 00W)**

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | SEP 1984 | | | |
| 19... | 11:20 | 2.7 | 16.0 | 25... | 16:50 | 0.66 | 19.0 |
| AUG 1984 | | | | | | | |
| 15... | 14:50 | 1.3 | 32.0 | | | | |

**07142650 PEACE C NR SYLVIA, KS (LAT 38 04 34N LONG 098 26 18W)**

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| DEC 1983 | | | | SEP 1984 | | | |
| 13... | 15:10 | 0.5 | 4.0 | 26... | 12:50 | 0.0 | 13.0 |

**07142670 PEACE C NR STERLING, KS (LAT 38 08 43N LONG 098 15 13W)**

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| DEC 1983 | | | | SEP 1984 | | | |
| 13... | 15:50 | 2.5 | 4.0 | 26... | 11:35 | 0.86 | 12.5 |

**07142740 SALT C NR HUTCHINSON, KS (LAT 38 04 23N LONG 098 02 11W)**

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| DEC 1983 | | | | SEP 1984 | | | |
| 13... | 11:50 | 4.3 | 4.0 | 26... | 10:10 | 2.5 | 10.5 |

**07142860 COW C NR CLAFLIN, KS (LAT 38 31 20N LONG 098 3[illegible] [illegible]0W)**

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| MAR 1984 | | | | JUN 1984 | | | |
| 30... | 11:05 | 1.0 | 7.0 | 13... | 15:05 | 0.1 | 22.5 |
| MAY | | | | | | | |
| 02... | 15:25 | 8.6 | 14.5 | | | | |

**07142900 BLOOD C NR BOYD, KS (LAT 38 32 10N LONG 098 51 35W)**

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|
| MAR 1984 | | | |
| 30... | 10:10 | 1.2 | 5.0 |

**07143300 COW C NR LYONS, KS (LAT 38 15 30N LONG 098 11 30W)**

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | AUG 1984 | | | |
| 17... | 10:50 | 1.4 | 14.0 | 16... | 08:55 | 1.9 | 22.5 |
| DEC | | | | SEP | | | |
| 07... | 15:50 | 4.5 | 1.0 | 25... | 14:45 | 1.0 | 15.5 |

**07143330 ARKANSAS R NR HUTCHINSON, KS (LAT 37 56 47N LONG 097 46 29W)**

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAR 1984 | | | |
| 13... | 10:40 | 88 | 12.0 | 07... | 13:00 | 119 | 13.0 |
| NOV | | | | APR | | | |
| 02... | 15:40 | 90 | 18.0 | 18... | 17:25 | 396 | 1[illegible].5 |
| DEC | | | | MAY | | | |
| 14... | 12:10 | 100 | 2.0 | 31... | 12:30 | 250 | 20.5 |
| JAN 1984 | | | | | | | |
| 25... | 12:25 | 118 | 0.0 | | | | |

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# MISCELLANEOUS WATER TEMPERATURES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

07143665 L ARKANSAS R AT ALTA MILLS, KS (LAT 38 06 44N LONG 097 35 30W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983<br>14... | 10:25 | 9.8 | 10.0 | MAR 1984<br>07... | 10:00 | 13 | 4.5 |
| NOV<br>03... | 08:50 | 5.5 | 16.0 | APR<br>19... | 08:55 | 91 | 12.5 |
| DEC<br>14... | 09:35 | 7.0 | 0.0 | MAY<br>31... | 09:40 | 33 | 16.0 |
| JAN 1984<br>25... | 09:25 | 9.1 | 0.0 | AUG<br>25... | 10:30 | 1.4 | 18.0 |

07144200 L ARKANSAS R AT VALLEY CENTER, KS (LAT 37 49 56N LONG 097 23 16W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983<br>03... | 12:40 | 29 | 17.0 | APR 1984<br>16... | 15:20 | 394 | 14.0 |
| DEC<br>14... | 16:05 | 28 | 1.5 | MAY<br>30... | 18:00 | 103 | 22.5 |
| JAN 1984<br>25... | 16:50 | 43 | 0.0 | JUL<br>13... | 08:50 | 21 | 23.5 |
| MAR<br>07... | 16:10 | 41 | 12.0 | AUG<br>22... | 15:55 | 10 | 30.0 |

07144300 ARKANSAS R AT WICHITA, KS (LAT 37 38 41N LONG 097 20 06W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983<br>05... | 11:40 | 71 | 20.0 | MAR 1984<br>09... | 11:40 | 167 | 7.0 |
| NOV<br>10... | 16:35 | 147 | 8.0 | APR<br>27... | 10:35 | 1350 | 17.5 |
| DEC<br>16... | 11:10 | 104 | 0.5 | JUN<br>15... | 10:00 | 831 | 26.0 |
| JAN 1984<br>26... | 14:50 | 1.7 | 5.0 | JUL<br>19... | 09:05 | 177 | 23.0 |

07144325 GYPSUM C AT OLIVER ST WICHITA, KS (LAT 37 38 49N LONG 097 16 49W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983<br>05... | 13:35 | 0.61 | 20.0 | APR 1984<br>17... | 13:20 | 3.5 | 16.5 |
| NOV<br>04... | 12:20 | 1.1 | 16.5 | MAY<br>29... | 14:20 | 1.3 | 22.5 |
| DEC<br>15... | 16:30 | 3.9 | 1.5 | JUL<br>12... | 12:05 | 0.99 | 28.5 |
| MAR 1984<br>08... | 16:30 | 1.9 | 8.5 | AUG<br>15... | 15:25 | 0.6 | 33.0 |

07144340 DRY C AT PAWNEE AV WICHITA, KS (LAT 37 39 05N LONG 097 17 36W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983<br>04... | 14:10 | 0.02 | 15.5 | APR 1984<br>17... | 15:15 | 0.26 | 18.5 |
| MAR 1984<br>09... | 10:00 | 0.01 | 2.5 | MAY<br>29... | 18:00 | 0.04 | 21.0 |

07144494 COWSKIN C TR AT WESTFIELD DR. WICHITA, KS (LAT 37 41 25N LONG 097 26 55W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| NOV 1983<br>04... | 09:30 | 0.43 | 16.0 | MAY 1984<br>30... | 09:30 | 0.45 | 16.0 |
| DEC<br>15... | 09:00 | 0.37 | 1.5 | JUL<br>12... | 14:40 | 0.31 | 29.0 |
| MAR 1984<br>08... | 13:50 | 0.16 | 7.0 | AUG<br>16... | 14:20 | 0.78 | 27.0 |
| APR<br>17... | 08:55 | 3.2 | 9.0 | | | | |

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| 07144550 ARKANSAS R AT DERBY, KS (LAT 37 32 34N LONG 097 16 31W) | | | | | | | |
| OCT 1983 | | | | APR 1984 | | | |
| 05... | 14:20 | 168 | 23.0 | 27... | 14:15 | 1300 | 20.5 |
| NOV | | | | JUN | | | |
| 10... | 12:40 | 249 | 8.5 | 15... | 13:35 | 899 | 29.0 |
| JAN 1984 | | | | JUL | | | |
| 07... | 12:20 | 288 | 5.0 | 19... | 12:00 | 260 | 26.5 |
| FEB | | | | AUG | | | |
| 09... | 10:40 | 377 | 7.5 | 30... | 12:00 | 140 | 28.5 |
| MAR | | | | | | | |
| 15... | 15:55 | 292 | 13.0 | | | | |
| 07144590 NF NINNESCAH R NR SYLVIA, KS (LAT 37 55 59N LONG 098 24 36W) | | | | | | | |
| DEC 1983 | | | | SEP 1984 | | | |
| 14... | 12:10 | 16 | 1.0 | 25... | 16:40 | 4.4 | 17.0 |
| 07144620 NF NINNESCAH R AB SILVER C NR ARLINGTON, KS (LAT 37 51 09N LONG 098 09 30W) | | | | | | | |
| DEC 1983 | | | | SEP 1984 | | | |
| 14... | 16:30 | 46 | 0.0 | 25... | 14:35 | 13 | 18.0 |
| 07144640 SILVER C NR LANGDON, KS (LAT 37 47 54N LONG 098 19 59W) | | | | | | | |
| DEC 1983 | | | | SEP 1984 | | | |
| 15... | 10:55 | 4.8 | 0.0 | 25... | 11:05 | 0.55 | 12.0 |
| 07144780 NF NINNESCAH R AB CHENEY RE, KS (LAT 37 50 41N LONG 097 56 09W) | | | | | | | |
| OCT 1983 | | | | SEP 1984 | | | |
| 06... | 11:30 | 18 | 15.0 | 25... | 11:45 | 10 | 11.0 |
| AUG 1984 | | | | | | | |
| 14... | 11:50 | 16 | 27.0 | | | | |
| 07144795 NF NINNESCAH R AT CHENEY DAM, KS (LAT 37 43 17N LONG 097 47 39W) | | | | | | | |
| NOV 1983 | | | | APR 1984 | | | |
| 03... | 15:10 | 0.17 | 21.0 | 18... | 09:35 | 1030 | 11.0 |
| DEC | | | | MAY | | | |
| 15... | 11:50 | 0.22 | 2.0 | 30... | 14:15 | 0.21 | 27.0 |
| JAN 1984 | | | | JUL | | | |
| 26... | 08:50 | 0.15 | 0.5 | 12... | 16:50 | 0.13 | 36.0 |
| MAR | | | | AUG | | | |
| 08... | 08:35 | 0.06 | 0.5 | 17... | 10:00 | 0.16 | 25.0 |
| 07144890 SF NINNESCAH R AT PRATT, KS (LAT 37 38 03N LONG 098 44 15W) | | | | | | | |
| SEP 1984 | | | | | | | |
| 24... | 15:20 | 7.1 | 22.0 | | | | |
| 07144910 SF NINNESCAH R NR PRATT, KS (LAT 37 38 16N LONG 098 43 14W) | | | | | | | |
| OCT 1983 | | | | AUG 1984 | | | |
| 12... | 12:20 | 8.1 | 13.5 | 14... | 15:30 | 4.6 | 24.0 |
| DEC | | | | SEP | | | |
| 15... | 14:35 | 8.0 | 1.0 | 24... | 13:50 | 3.9 | 20.0 |
| 07145130 SF NINNESCAH R NR CALISTA, KS (LAT 37 38 45N LONG 098 17 12W) | | | | | | | |
| DEC 1983 | | | | SEP 1984 | | | |
| 16... | 12:55 | 108 | 0.0 | 25... | 08:50 | 69 | 11.0 |

07145200 SF NINNESCAH R NR MURDOCK, KS (LAT 37 33 51N LONG 097 51 10W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|
| OCT 1983 | | | |
| 17... | 11:20 | 143 | 11.0 |
| DEC | | | |
| 07... | 10:30 | 158 | 0.0 |
| AUG 1984 | | | |
| 14... | 10:05 | 54 | 22.0 |
| SEP | | | |
| 25... | 09:40 | 52 | 10.5 |

07145500 NINNESCAH R NR PECK, KS (LAT 37 27 26N LONG 097 25 20W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|
| OCT 1983 | | | |
| 05... | 11:35 | 68 | 18.0 |
| NOV | | | |
| 10... | 09:30 | 212 | 4.5 |
| JAN 1984 | | | |
| 06... | 14:00 | 279 | 2.0 |
| FEB | | | |
| 08... | 16:00 | 197 | 8.0 |
| MAR | | | |
| 15... | 12:15 | 256 | 4.5 |
| APR 1984 | | | |
| 26... | 17:15 | 1270 | 21.0 |
| JUN | | | |
| 14... | 15:00 | 217 | 31.0 |
| JUL | | | |
| 18... | 14:40 | 103 | 30.5 |
| AUG | | | |
| 29... | 14:05 | 40 | 31.0 |

07146500 ARKANSAS R AT ARKANSAS CITY, KS (LAT 37 03 23N LONG 097 03 32W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|
| OCT 1983 | | | |
| 03... | 08:30 | 210 | 20.5 |
| 06... | 18:30 | 220 | 17.5 |
| 11... | 09:40 | 328 | 17.0 |
| 12... | 12:05 | 337 | 15.0 |
| 13... | 19:35 | 356 | 18.0 |
| 17... | 18:35 | 384 | 17.0 |
| 21... | 11:45 | 1290 | 13.5 |
| 24... | 18:35 | 930 | 16.0 |
| 30... | 17:40 | 488 | 16.0 |
| NOV | | | |
| 01... | 13:45 | 528 | 18.5 |
| 05... | 13:15 | 520 | 15.0 |
| 07... | 11:45 | 504 | 15.0 |
| 09... | 09:35 | 559 | 11.0 |
| 11... | 16:00 | 640 | 9.0 |
| 14... | 11:45 | 592 | 11.0 |
| 17... | 11:40 | 576 | 10.0 |
| 21... | 11:50 | 544 | 10.0 |
| 23... | 09:50 | 620 | 5.0 |
| 28... | 09:10 | 900 | 2.5 |
| DEC | | | |
| 01... | 09:15 | 890 | 0.0 |
| 05... | 09:15 | 960 | 3.5 |
| 09... | 09:30 | 760 | 1.0 |
| 11... | 16:45 | 710 | 4.0 |
| 15... | 09:05 | 730 | 0.0 |
| 19... | 09:00 | 650 | 0.0 |
| JAN 1984 | | | |
| 04... | 15:45 | 1030 | 0.0 |
| 05... | 09:05 | 1250 | 0.0 |
| 09... | 07:45 | 1180 | 2.5 |
| 12... | 13:50 | 1030 | 0.0 |
| 16... | 08:50 | 1630 | 0.0 |
| 30... | 08:50 | 960 | 2.5 |
| FEB | | | |
| 02... | 09:10 | 1070 | 5.0 |
| 06... | 08:40 | 980 | 0.0 |
| 07... | 15:50 | 555 | 8.0 |
| 10... | 14:10 | 860 | 10.0 |
| 13... | 12:40 | 840 | 9.5 |
| 16... | 09:10 | 780 | 7.0 |
| 20... | 11:20 | 780 | 6.0 |
| 23... | 18:15 | 700 | 10.0 |
| 27... | 08:55 | 900 | 3.5 |
| MAR 1984 | | | |
| 01... | 09:00 | 800 | 3.5 |
| 05... | 08:55 | 2160 | 5.0 |
| 08... | 09:15 | 984 | 3.0 |
| 12... | 08:25 | 850 | 7.5 |
| 14... | 09:35 | 702 | 9.0 |
| 15... | 11:45 | 870 | 17.0 |
| 19... | 08:30 | 10100 | 4.5 |
| 22... | 09:35 | 14500 | 5.0 |
| 26... | 08:20 | 22800 | 6.0 |
| 31... | 15:00 | 6920 | 8.0 |
| APR | | | |
| 02... | 08:15 | 4120 | 8.5 |
| 05... | 12:30 | 5240 | 9.5 |
| 09... | 08:45 | 22400 | 10.5 |
| 12... | 18:20 | 12100 | 14.0 |
| 16... | 08:55 | 4140 | 11.5 |
| 18... | 09:20 | 3160 | 14.5 |
| 23... | 09:00 | 4100 | 8.5 |
| 25... | 14:15 | 3020 | 19.0 |
| 26... | 08:55 | 2950 | 17.0 |
| 30... | 08:55 | 6080 | 12.5 |
| MAY | | | |
| 04... | 09:40 | 7050 | 14.0 |
| 07... | 08:30 | 3820 | 15.0 |
| 09... | 09:05 | 3300 | 15.5 |
| 14... | 14:30 | 1830 | 22.5 |
| 17... | 08:25 | 1720 | 19.5 |
| 21... | 09:30 | 1950 | 20.0 |
| 23... | 09:15 | 1470 | 19.0 |
| 29... | 19:20 | 1350 | 22.5 |
| JUN | | | |
| 04... | 19:50 | 1040 | 24.0 |
| 07... | 19:50 | 1020 | 26.0 |
| 11... | 18:45 | 2000 | 26.5 |
| 13... | 09:10 | 1530 | 28.0 |
| 14... | 14:25 | 1350 | 29.0 |
| 18... | 08:25 | 1540 | 24.0 |
| 21... | 09:05 | 1260 | 24.0 |
| 25... | 08:25 | 3000 | 23.0 |
| 28... | 08:50 | 1440 | 25.5 |

07146500 ARKANSAS R AT ARKANSAS CITY, KS (LAT 37 03 23N LONG 097 03 32W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| JUL 1984 | | | | AUG 1984 | | | |
| 01... | 15:45 | 1100 | 27.0 | 13... | 08:30 | 283 | 23.0 |
| 06... | 13:05 | 766 | 28.5 | 16... | 08:40 | 267 | 24.0 |
| 09... | 18:25 | 655 | 30.5 | 20... | 08:30 | 238 | 23.0 |
| 12... | 07:00 | 584 | 31.0 | 23... | 08:50 | 333 | 22.0 |
| 16... | 16:50 | 450 | 25.5 | 27... | 08:40 | 247 | 22.0 |
| 17... | 08:00 | 516 | 22.5 | 27... | 16:10 | 257 | 29.5 |
| 20... | 07:15 | 490 | 29.0 | 31... | 09:15 | 200 | 24.5 |
| 23... | 12:30 | 433 | 28.5 | SEP | | | |
| 26... | 08:00 | 395 | 29.0 | 04... | 08:35 | 221 | 18.0 |
| 30... | 08:15 | 351 | 22.5 | 06... | 08:35 | 190 | 18.0 |
| AUG | | | | 10... | 08:35 | 180 | 18.0 |
| 01... | 18:40 | 319 | 31.0 | 13... | 20:50 | 180 | 27.0 |
| 07... | 08:45 | 291 | 24.5 | 18... | 08:40 | 180 | 14.0 |
| 09... | 19:10 | 322 | 31.5 | 20... | 08:50 | 400 | 18.0 |
| | | | | 24... | 08:25 | 200 | 21.5 |

07146623 WALNUT R BL EL DORADO LK, KS (LAT 37 50 43N LONG 096 49 25W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| JAN 1984 | | | | APR 1984 | | | |
| 03... | 14:15 | 3.8 | 0.0 | 23... | 13:35 | 502 | 10.5 |
| FEB | | | | JUL | | | |
| 06... | 17:10 | 6.9 | 5.0 | 11... | 17:25 | 0.87 | 29.5 |
| MAR | | | | AUG | | | |
| 12... | 12:55 | 6.9 | 5.5 | 22... | 11:20 | 18 | 27.0 |

07146830 WALNUT R AT HWY 54 E OF EL DORADO, KS (LAT 37 49 01N LONG 096 50 21W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | APR 1984 | | | |
| 06... | 09:25 | 9.5 | 18.0 | 23... | 17:00 | 663 | 11.5 |
| NOV | | | | JUN | | | |
| 07... | 15:00 | 10 | 15.5 | 12... | 08:05 | 40 | 23.5 |
| DEC | | | | JUL | | | |
| 19... | 14:15 | 9.4 | 0.0 | 11... | 19:05 | 15 | 28.5 |
| JAN 1984 | | | | AUG | | | |
| 27... | 12:15 | 32 | 0.5 | 21... | 17:35 | 12 | 27.5 |
| MAR | | | | | | | |
| 13... | 09:15 | 30 | 6.0 | | | | |

07146895 WALNUT R AT AUGUSTA, KS (LAT 37 40 14N LONG 096 58 48W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | APR 1984 | | | |
| 05... | 17:05 | 5.3 | 19.5 | 24... | 13:15 | 694 | 12.5 |
| NOV | | | | JUN | | | |
| 08... | 11:50 | 16 | 15.0 | 12... | 11:05 | 105 | 25.0 |
| JAN 1984 | | | | JUL | | | |
| 04... | 12:35 | 22 | 0.0 | 16... | 11:35 | 33 | 27.0 |
| 27... | 09:30 | 25 | 0.0 | AUG | | | |
| MAR | | | | 27... | 11:40 | 22 | 26.0 |
| 13... | 11:30 | 60 | 7.0 | | | | |

07147070 WHITEWATER R AT TOWANDA, KS (LAT 37 47 45N LONG 097 00 45W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | APR 1984 | | | |
| 06... | 11:40 | 3.0 | 16.5 | 24... | 09:20 | 272 | 11.0 |
| NOV | | | | JUN | | | |
| 08... | 09:10 | 10 | 14.0 | 11... | 14:30 | 73 | 24.0 |
| JAN 1984 | | | | JUL | | | |
| 04... | 10:15 | 22 | 0.0 | 12... | 09:50 | 21 | 24.0 |
| FEB | | | | AUG | | | |
| 06... | 13:00 | 35 | 1.0 | 23... | 09:30 | 6.9 | 23.0 |
| MAR | | | | | | | |
| 12... | 16:15 | 32 | 7.0 | | | | |

| DATE | TIME | STREAM-FLOW, INSTAN-TANECUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| 07147800 | WALNUT R AT WINFIELD. KS (LAT 37 13 27N LONG 096 59 40W) | | | | | | |
| OCT 1983 | | | | APR 1984 | | | |
| 13... | 09:25 | 67 | 18.0 | 24... | 17:05 | 2170 | 13.0 |
| NOV | | | | JUN | | | |
| 08... | 16:40 | 77 | 16.0 | 12... | 15:00 | 3190 | 26.0 |
| JAN 1984 | | | | JUL | | | |
| 07... | 09:05 | 134 | 0.0 | 16... | 14:35 | 127 | 27.5 |
| FEB | | | | AUG | | | |
| 07... | 11:05 | 109 | 4.0 | 27... | 14:10 | 63 | 27.5 |
| MAR | | | | | | | |
| 13... | 15:35 | 291 | 9.0 | | | | |
| 07149000 | MEDICINE LODGE R NR KIOWA, KS (LAT 37 02 17N LONG 098 28 04W) | | | | | | |
| OCT 1983 | | | | AUG 1984 | | | |
| 12... | 16:20 | 66 | 16.5 | 13... | 15:45 | 17 | 29.0 |
| DEC | | | | SEP | | | |
| 06... | 10:15 | 102 | 0.0 | 24... | 16:15 | 3.2 | 29.0 |
| 07151500 | CHIKASKIA R NR CORBIN, KS (LAT 37 07 44N LONG 097 36 04W) | | | | | | |
| OCT 1983 | | | | MAR 1984 | | | |
| 11... | 13:35 | 60 | 20.0 | 14... | 16:30 | 144 | 15.5 |
| NOV | | | | APR | | | |
| 09... | 14:05 | 114 | 11.0 | 26... | 10:00 | 328 | 20.5 |
| JAN 1984 | | | | JUN | | | |
| 05... | 14:20 | 130 | 0.0 | 14... | 11:40 | 160 | 28.0 |
| FEB | | | | JUL | | | |
| 08... | 09:10 | 98 | 4.0 | 18... | 09:40 | 57 | 23.5 |
| 07157500 | CROOKED C NR NYE, KS (LAT 37 02 02N LONG 100 11 55W) | | | | | | |
| OCT 1983 | | | | AUG 1984 | | | |
| 13... | 12:15 | 5.5 | 17.0 | 08... | 12:05 | 8.2 | 31.5 |
| DEC | | | | SEP | | | |
| 01... | 12:05 | 15 | 0.0 | 07... | 12:30 | 1.3 | 24.0 |
| 07157900 | CAVALRY C AT COLDWATER, KS (LAT 37 16 00N LONG 099 20 40W) | | | | | | |
| OCT 1983 | | | | AUG 1984 | | | |
| 13... | 08:55 | 1.4 | 12.0 | 13... | 13:25 | 0.78 | 27.0 |
| DEC | | | | | | | |
| 01... | 14:35 | 1.5 | 10.0 | | | | |
| 07166000 | VERDIGRIS R NR COYVILLE, KS (LAT 37 42 20N LONG 095 54 20W) | | | | | | |
| OCT 1983 | | | | MAY 1984 | | | |
| 18... | 11:20 | 8.7 | 15.5 | 14... | 16:10 | 250 | 21.0 |
| NOV | | | | JUL | | | |
| 29... | 09:20 | 16 | 4.0 | 02... | 12:45 | 161 | 25.0 |
| JAN 1984 | | | | AUG | | | |
| 10... | 09:55 | 196 | 2.5 | 06... | 12:20 | 4.3 | 28.0 |
| FEB | | | | SEP | | | |
| 28... | 09:35 | 84 | 6.0 | 19... | 10:45 | 8.6 | 18.0 |
| APR | | | | | | | |
| 03... | 10:35 | 3060 | 7.0 | | | | |
| 07166500 | VERDIGRIS R NR ALTOONA, KS (LAT 37 29 26N LONG 095 40 49W) | | | | | | |
| OCT 1983 | | | | APR 1984 | | | |
| 24... | 13:40 | 62 | 14.0 | 04... | 10:30 | 3760 | 7.5 |
| NOV | | | | JUN | | | |
| 30... | 10:30 | 185 | 5.0 | 27... | 12:35 | 2230 | 26.5 |
| JAN 1984 | | | | SEP | | | |
| 24... | 12:45 | 45 | 0.5 | 19... | 16:05 | 11 | 22.0 |
| FEB | | | | | | | |
| 22... | 15:00 | 117 | 8.0 | | | | |

# MISCELLANEOUS WATER TEMPERATURES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### 07167500 OTTER C AT CLIMAX, KS (LAT 37 42 30N LONG 096 13 30W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 19... | 13:40 | 3.0 | 16.5 | 18... | 14:30 | 49 | 22.0 |
| DEC | | | | JUN | | | |
| 02... | 13:50 | 7.4 | 4.5 | 25... | 12:55 | 42 | 24.5 |
| JAN 1984 | | | | AUG | | | |
| 10... | 14:05 | 11 | 1.5 | 08... | 11:45 | 3.3 | 28.5 |
| FEB | | | | SEP | | | |
| 21... | 12:05 | 15 | 8.0 | 18... | 12:05 | 0.6 | 19.0 |
| APR | | | | | | | |
| 06... | 15:10 | 114 | 11.0 | | | | |

### 07168500 FALL R NR FALL RIVER, KS (LAT 37 38 34N LONG 096 03 33W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 18... | 17:45 | 3.8 | 16.0 | 15... | 11:20 | 247 | 18.0 |
| NOV | | | | JUN | | | |
| 29... | 14:00 | 2.6 | 5.0 | 28... | 11:05 | 23 | 26.5 |
| JAN 1984 | | | | AUG | | | |
| 11... | 09:45 | 20 | 3.0 | 06... | 11:40 | 6.2 | 26.5 |
| FEB | | | | SEP | | | |
| 21... | 17:20 | 68 | 7.0 | 18... | 15:40 | 5.0 | 25.0 |
| MAR | | | | | | | |
| 30... | 13:15 | 2550 | 8.0 | | | | |

### 07169500 FALL R AT FREDONIA, KS (LAT 37 30 30N LONG 095 50 00W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | APR 1984 | | | |
| 19... | 09:50 | 8.7 | 16.5 | 03... | 16:05 | 3460 | 7.0 |
| NOV | | | | JUN | | | |
| 29... | 16:50 | 33 | 5.5 | 27... | 15:50 | 740 | 27.0 |
| JAN 1984 | | | | AUG | | | |
| 11... | 14:00 | 30 | 1.0 | 08... | 08:40 | 14 | 28.5 |
| FEB | | | | SEP | | | |
| 22... | 12:15 | 76 | 8.0 | 19... | 13:45 | 9.0 | 21.0 |

### 07169800 ELK R AT ELK FALLS, KS (LAT 37 22 32N LONG 096 11 07W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 19... | 16:10 | 0.32 | 17.0 | 18... | 10:50 | 262 | 21.5 |
| DEC | | | | JUN | | | |
| 02... | 11:05 | 0.6 | 5.0 | 25... | 16:00 | 54 | 27.0 |
| JAN 1984 | | | | AUG | | | |
| 12... | 15:50 | 2.2 | 3.5 | 07... | 16:10 | 0.96 | 30.0 |
| FEB | | | | SEP | | | |
| 23... | 09:15 | 3.4 | 7.5 | 20... | 13:30 | 0.23 | 22.5 |
| APR | | | | | | | |
| 06... | 12:00 | 218 | 10.0 | | | | |

### 07170060 ELK R BL ELK CITY LK, KS (LAT 37 16 46N LONG 095 46 53W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 20... | 18:00 | 20 | 16.0 | 17... | 10:10 | 1270 | 19.0 |
| NOV | | | | JUN | | | |
| 30... | 14:55 | 10 | 7.0 | 26... | 16:15 | 24 | 26.0 |
| JAN 1984 | | | | AUG | | | |
| 12... | 08:40 | 10 | 3.5 | 07... | 09:30 | 180 | 26.5 |
| FEB | | | | SEP | | | |
| 23... | 15:30 | 19 | 7.5 | 20... | 09:55 | 17 | 19.0 |
| APR | | | | | | | |
| 04... | 15:30 | 1170 | 7.5 | | | | |

07170500 VERDIGRIS R AT INDEPENDENCE, KS (LAT 37 13 26N LONG 095 40 43W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 21... | 12:50 | 3530 | 14.0 | 16... | 15:55 | 1150 | 20.0 |
| DEC | | | | JUN | | | |
| 01... | 09:40 | 644 | 5.0 | 27... | 09:20 | 2350 | 26.5 |
| JAN 1984 | | | | AUG | | | |
| 13... | 12:55 | 274 | 1.0 | 07... | 13:45 | 193 | 27.5 |
| FEB | | | | SEP | | | |
| 24... | 10:10 | 240 | 8.0 | 20... | 16:25 | 33 | 22.0 |
| APR | | | | | | | |
| 05... | 09:25 | 7880 | 7.5 | | | | |

07170700 BIG HILL C NR CHERRYVALE, KS (LAT 37 16 00N LONG 095 28 05W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | APR 1984 | | | |
| 26... | 13:10 | 44 | 15.5 | 12... | 10:35 | 156 | 12.0 |
| DEC | | | | MAY | | | |
| 06... | 16:45 | 34 | 3.0 | 23... | 10:15 | 5.4 | 22.0 |
| JAN 1984 | | | | 29... | 13:30 | 362 | 19.5 |
| 11... | 12:30 | 6.3 | 2.0 | | | | |
| MAR | | | | | | | |
| 01... | 10:45 | 97 | 5.0 | | | | |

07170800 MUD C NR MOUND VALLEY, KS (LAT 37 11 38N LONG 095 26 52W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|
| OCT 1983 | | | |
| 19... | 09:20 | 36 | 14.0 |

07172000 CANEY R NR ELGIN, KS (LAT 37 00 13N LONG 096 18 54W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | APR 1984 | | | |
| 20... | 11:40 | 4.5 | 17.5 | 05... | 14:45 | 760 | 9.0 |
| DEC | | | | MAY | | | |
| 01... | 14:55 | 27 | 5.0 | 17... | 15:15 | 630 | 21.0 |
| JAN 1984 | | | | JUN | | | |
| 12... | 12:20 | 26 | 1.5 | 26... | 10:40 | 46 | 27.0 |
| FEB | | | | JUL | | | |
| 23... | 12:25 | 21 | 8.5 | 17... | 14:50 | 9.8 | 31.5 |

07179500 NEOSHO R AT COUNCIL GROVE, KS (LAT 38 39 54N LONG 096 29 38W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAR 1984 | | | |
| 17... | 12:45 | 4.7 | 15.0 | 27... | 14:25 | 1230 | 5.5 |
| NOV | | | | MAY | | | |
| 28... | 15:50 | 465 | 3.0 | 01... | 16:05 | 1070 | 12.0 |
| JAN 1984 | | | | JUN | | | |
| 05... | 10:40 | 5.1 | 0.5 | 12... | 17:45 | 91 | 25.0 |
| FEB | | | | AUG | | | |
| 25... | 14:00 | 56 | 6.0 | 27... | 10:35 | 12 | 27.0 |

07179730 NEOSHO R NR AMERICUS, KS (LAT 38 28 01N LONG 096 15 01W)

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 17... | 16:20 | 7.4 | 15.5 | 01... | 12:50 | 1000 | 13.5 |
| NOV | | | | JUN | | | |
| 28... | 10:35 | 1770 | 6.5 | 12... | 14:45 | 506 | 23.0 |
| JAN 1984 | | | | JUL | | | |
| 05... | 14:10 | 51 | 0.5 | 10... | 11:20 | 207 | 28.0 |
| FEB | | | | AUG | | | |
| 25... | 11:05 | 143 | 5.5 | 21... | 10:50 | 22 | 26.0 |
| MAR | | | | | | | |
| 27... | 11:40 | 3390 | 7.5 | | | | |

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| 07179795 | COTTONWOOD R BL MARION LK, KS (LAT 38 22 00N LONG 097 05 00W) | | | | | | |
| NOV 1983 | | | | APR 1984 | | | |
| 02... | 09:00 | 5.7 | 14.0 | 19... | 16:40 | 440 | 10.5 |
| DEC | | | | JUN | | | |
| 13... | 14:50 | 2.7 | 3.0 | 01... | 09:05 | 10 | 18.0 |
| JAN 1984 | | | | AUG | | | |
| 24... | 15:25 | 2.7 | 3.5 | 28... | 08:50 | 7.3 | 25.0 |
| MAR | | | | | | | |
| 06... | 14:30 | 1.6 | 9.0 | | | | |
| 07180400 | COTTONWOOD R NR FLORENCE, KS (LAT 38 14 10N LONG 096 52 37W) | | | | | | |
| NOV 1983 | | | | APR 1984 | | | |
| 01... | 13:10 | 46 | 15.0 | 20... | 13:00 | 782 | 11.0 |
| DEC | | | | JUN | | | |
| 13... | 09:30 | 72 | 1.5 | 01... | 14:40 | 158 | 20.0 |
| JAN 1984 | | | | AUG | | | |
| 24... | 10:30 | 71 | 0.0 | 27... | 13:45 | 35 | 27.0 |
| MAR | | | | | | | |
| 06... | 09:50 | 90 | 5.0 | | | | |
| 07180500 | CEDAR C NR CEDAR POINT, KS (LAT 38 11 55N LONG 096 49 22W) | | | | | | |
| NOV 1983 | | | | APR 1984 | | | |
| 01... | 09:30 | 5.4 | 14.0 | 20... | 09:30 | 31 | 12.0 |
| DEC | | | | JUN | | | |
| 12... | 14:30 | 14 | 1.5 | 01... | 12:30 | 33 | 19.0 |
| JAN 1984 | | | | AUG | | | |
| 23... | 16:40 | 13 | 0.0 | 28... | 11:15 | 3.3 | 27.0 |
| MAR | | | | | | | |
| 05... | 17:35 | 50 | 6.5 | | | | |
| 07181500 | W CREEK NR ELMDALE, KS (LAT 38 23 36N LONG 096 43 04W) | | | | | | |
| FEB 1984 | | | | | | | |
| 21... | 16:10 | 12 | 6.5 | | | | |
| 07182250 | COTTONWOOD R NR PLYMOUTH, KS (LAT 38 23 51N LONG 096 21 21W) | | | | | | |
| OCT 1983 | | | | APR 1984 | | | |
| 18... | 08:50 | 64 | 13.5 | 23... | 12:15 | 2730 | 10.0 |
| 31... | 11:40 | 66 | 13.5 | JUN | | | |
| DEC | | | | 06... | 11:40 | 493 | 21.0 |
| 12... | 11:10 | 204 | 0.5 | JUL | | | |
| JAN 1984 | | | | 10... | 13:55 | 194 | 29.5 |
| 23... | 13:30 | 186 | 0.0 | AUG | | | |
| MAR | | | | 21... | 13:30 | 65 | 27.0 |
| 05... | 12:30 | 803 | 6.0 | | | | |
| 07182510 | NEOSHO R AT BURLINGTON, KS (LAT 38 11 40N LONG 095 44 10W) | | | | | | |
| OCT 1983 | | | | APR 1984 | | | |
| 17... | 15:40 | 26 | 16.0 | 02... | 14:15 | 10200 | 6.5 |
| NOV | | | | JUL | | | |
| 28... | 12:35 | 242 | 6.0 | 03... | 11:55 | 917 | 26.5 |
| JAN 1984 | | | | 24... | 10:35 | 3450 | 27.0 |
| 09... | 12:15 | 131 | 3.0 | | | | |
| FEB | | | | | | | |
| 27... | 13:50 | 1980 | 4.5 | | | | |

### C7183000 NEOSHO R NR ICLA, KS (LAT 37 53 27N LONG 095 25 50W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANECUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 27... | 09:20 | 41 | 13.0 | 23... | 15:35 | 1550 | 23.0 |
| DEC | | | | JUL | | | |
| 06... | 10:35 | 1470 | 3.0 | 12... | 14:10 | 496 | 30.0 |
| JAN 1984 | | | | AUG | | | |
| 10... | 16:15 | 561 | 0.0 | 16... | 09:20 | 46 | 26.0 |
| MAR | | | | SEP | | | |
| 01... | 16:30 | 2890 | 5.0 | 27... | 10:00 | 26 | 16.0 |
| APR | | | | | | | |
| 12... | 16:00 | 14800 | 12.0 | | | | |

### 07183500 NEOSHO R NR PARSONS, KS (LAT 37 18 39N LONG 095 06 37W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANECUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | MAY 1984 | | | |
| 25... | 14:30 | 325 | 13.5 | 22... | 13:40 | 944 | 23.0 |
| DEC | | | | JUL | | | |
| 07... | 13:00 | 1970 | 3.0 | 11... | 14:25 | 609 | 30.0 |
| JAN 1984 | | | | AUG | | | |
| 12... | 10:05 | 988 | 0.0 | 15... | 11:00 | 61 | 28.0 |
| FEB | | | | SEP | | | |
| 29... | 13:55 | 6490 | 4.0 | 26... | 10:00 | 26 | 20.0 |
| APR | | | | | | | |
| 11... | 14:45 | 16700 | 14.0 | | | | |

### 07184000 LIGHTNING C NR MCCUNE, KS (LAT 37 16 54N LONG 095 01 56W)

| DATE | TIME | STREAM-FLOW, INSTAN-TANECUS (CFS) | TEMPER-ATURE (DEG C) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | TEMPER-ATURE (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT 1983 | | | | APR 1984 | | | |
| 04... | 16:20 | 0.09 | 20.0 | 03... | 14:20 | 567 | 10.0 |
| 25... | 11:25 | 54 | 12.5 | 11... | 09:35 | 203 | 13.0 |
| DEC | | | | MAY | | | |
| 07... | 16:20 | 69 | 3.0 | 22... | 11:00 | 10 | 21.0 |
| JAN 1984 | | | | JUL | | | |
| 11... | 16:50 | 80 | 0.0 | 11... | 10:20 | 0.3 | 25.5 |
| FEB | | | | | | | |
| 29... | 10:50 | 619 | 4.0 | | | | |

SITE STATUS AT THE TIME WATER-LEVEL WAS MEASURED -- D, DRY; F, FLOWING; O, OBSTRUCTION; P, PUMPING; R, RECENTLY PUMPED; S, NEARBY WELL PUMPING; T, NEARBY WELL RECENTLY PUMPED; W, WELL DESTROYED; Z, OTHER.

## ALLEN COUNTY

### WELL 24S 18E 28CDD 01 SITE NUMBER 375528095263701

24-18E-28CDD. KGS. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 23 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, 1.7 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 948. FEET

RECORDS AVAILABLE 1964, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.30 FEET BELOW LAND SURFACE DATUM MAR 20, 1973.

LOWEST WATER LEVEL 16.10 FEET BELOW LAND SURFACE DATUM JUL 29, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 06, 1983 14.15 ; MAR 06, 1984 13.85 ; JUN 04, 1984 9.00 ; SEP 13, 1984 12.80

## BARBER COUNTY

### WELL 32S 11W 30BBA 01 SITE NUMBER 371414098334701

32-11W-30BBA. USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 32 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1450. FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.13 FEET BELOW LAND SURFACE DATUM JUN 14, 1983.

LOWEST WATER LEVEL 6.63 FEET BELOW LAND SURFACE DATUM AUG 27, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 12, 1983 4.17 ; MAR 05, 1984 4.15 ; JUN 06, 1984 3.98 .

### WELL 32S 12W 04DBC 01 SITE NUMBER 371710098374501

32-12W-4DBC. (4) MADGE EVANS. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DEPTH 66 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF PUMP BASE, SOUTH, 0.8 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1480. FEET

RECORDS AVAILABLE 1940 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.50 FEET BELOW LAND SURFACE DATUM JUN 22, 1949.

LOWEST WATER LEVEL 19.40 FEET BELOW LAND SURFACE DATUM SEP 16, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 12, 1983 14.96 ; MAR 05, 1984 15.09 ; JUN 06, 1984 16.88 .

### WELL 33S 11W 28CBB 01 SITE NUMBER 370837098314201

33-11W-28CBB. ALBERT HARBAUGH. DRILLED WATER-TABLE WELL IN ALLUVIUM. DIAMETER 6 INCHES, DEPTH 29 FEET. MEASURING POINT, TOP WEST EDGE OF 6-INCH COUPLING, 2.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1360. FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.73 FEET BELOW LAND SURFACE DATUM SEP 25, 1973.

LOWEST WATER LEVEL 5.23 FEET BELOW LAND SURFACE DATUM JUL 30, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 12, 1983 4.35 ; MAR 05, 1984 4.13 ; JUN 06, 1984 4.24 .

## BARTON COUNTY

### WELL 18S 15W 28CCC 03 SITE NUMBER 382704098593803

18-15W-28CCC3. (109A) USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 68 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 4.0 FEET ABOVE LSD. REPLACEMENT FOR 18-15W-28CCC. MP CHANGED TO 3.30 FEET ABOVE LSD, APRIL 1984. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1912.5 FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.86 FEET BELOW LAND SURFACE DATUM NOV 20, 1961.

LOWEST WATER LEVEL 26.54 FEET BELOW LAND SURFACE DATUM SEP 07, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 23.30 ; JAN 24, 1984 22.70 ; MAR 18, 1984 20.91 ; JUN 07, 1984 19.41 ;

SEP 10, 1984 24.99 .

## BOURBON COUNTY

### WELL 25S 24E 36AAC 01 SITE NUMBER 374953094425901

25-24E-36AAC. CITY OF FT SCOTT. DRILLED, ABANDONED, WATER-TABLE MUNICIPAL WELL IN ROUBIDOUX FORMATION. DEPTH 700 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN CENTER OF COVER PLATE, 0.3 FOOT ABOVE LSD. MEASURED BY KBSA. MP CHANGED TO 0.3 FOOT BELOW LSD, SEPTEMBER 1983.

ALTITUDE OF LAND SURFACE 916. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 174.10 FEET BELOW LAND SURFACE DATUM DEC 08, 1981.

LOWEST WATER LEVEL 198.20 FEET BELOW LAND SURFACE DATUM MAR 06, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 185.35 ; MAR 06, 1984 185.65 ; JUN 05, 1984 185.00 ; SEP 14, 1984 186.30 .

## CHEROKEE COUNTY

### WELL 34S 25E 13BAC 01 SITE NUMBER 370514094373901

34-25E-13BAC. GALENA SMELTER. DRILLED, UNUSED, ARTESIAN OBSERVATION WELL IN ROUBIDOUX FORMATION. DEPTH 1150 FEET, DIAMETER 8-6 INCHES. MEASURING POINT, TOP OF RECORDER FLOOR, 3.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 890. FEET

RECORDS AVAILABLE 1932, 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 65.40 FEET BELOW LAND SURFACE DATUM JUN 06, 1983.

LOWEST WATER LEVEL 115.79 FEET BELOW LAND SURFACE DATUM MAR 10, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 06, 1983 68.25 ; MAR 06, 1984 75.08 ; JUN 04, 1984 67.40 ; SEP 13, 1984 75.06 .

## CHEYENNE COUNTY

### WELL 03S 37W 19BBC 01 SITE NUMBER 394658101312601

3-37W-19BBC. A. L. KEHLBECK. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 325 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN SOUTHWEST SIDE OF PUMP, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3468. FEET

RECORDS AVAILABLE 1950, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 210.64 FEET BELOW LAND SURFACE DATUM JUN 08, 1976.

LOWEST WATER LEVEL 242.19 FEET BELOW LAND SURFACE DATUM JUN 06, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 11, 1984 230.54 ; APR 09, 1984 226.73 ; JUN 04, 1984 226.31 ; SEP 13, 1984 229.34 .

## CHEYENNE COUNTY -- CONTINUED

### WELL 03S 39W 32BDB 01 SITE NUMBER 394507101433401

3-39W-32BDB. CLARENCE YONKEY. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 224 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 0.8 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3490. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 149.18 FEET BELOW LAND SURFACE DATUM JUN 07, 1983.

LOWEST WATER LEVEL 178.74 FEET BELOW LAND SURFACE DATUM JUL 15, 1960.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 11, 1984 153.50 ; APR 09, 1984 152.57 ; JUN 04, 1984 154.17 ; SEP 13, 1984 166.

### WELL 05S 38W 22ACB 01 SITE NUMBER 393625101342401

5-38W-22ACB. SUSAN GILLILAND. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 270 FEET, DIAMERTER 18 INCHES. MEASURING POINT, HOLE IN SOUTH SIDE OF PUMP BASE, 0.2 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3437. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 89.71 FEET BELOW LAND SURFACE DATUM JAN 23, 1967.

LOWEST WATER LEVEL 110.46 FEET BELOW LAND SURFACE DATUM SEP 16, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 11, 1984 98.10 ; APR 09, 1984 96.28 ; JUN 04, 1984 94.78 .

### WELL 05S 40W 14BCD 01 SITE NUMBER 393712101470601

5-40W-14BCD. RALEIGH NICHOL. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 325 FEET. MEASURING POINT, HOLE IN PUMP BASE, NORTH SIDE, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3645.0 FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 202.82 FEET BELOW LAND SURFACE DATUM MAR 12, 1975.

LOWEST WATER LEVEL 231.77 FEET BELOW LAND SURFACE DATUM SEP 20, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 10, 1984 222.10 ; APR 09, 1984 220.69 ; JUN 04, 1984 220.14 ; SEP 13, 1984 229.2

### WELL 05S 42W 14CBC 01 SITE NUMBER 393658102003601

5-42W-14CBC. MELVIN SCHLEPP. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 221 FEET, DIAMETER 16 INCHES. MEASURING POINT, WEST SIDE UPPER EDGE OF SLOPING PIPE, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3657. FEET

RECORDS AVAILABLE 1964, 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 147.27 FEET BELOW LAND SURFACE DATUM JAN 25, 1967.

LOWEST WATER LEVEL 172.82 FEET BELOW LAND SURFACE DATUM SEP 14, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 10, 1984 155.55 ; APR 10, 1984 158.52 ; JUN 04, 1984 153.11 ; SEP 13, 1984 162.7

## CLARK COUNTY

### WELL 30S 23W 06AAA 01 SITE NUMBER 372758099520401

30-23W-6AAA. ARNOLD HOUFF. DRILLED, WATER-TABLE DOMESTIC AND STOCK WELL IN OGALLALA FORMATION. DEPTH 160 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CRACK IN PUMP, 1.4 FEET ABOVE LSD. MEASURED BY KSBA. MP CHANGED TO 0.7 FOOT ABOVE LSD, APRIL 1963. MP CHANGED BACK TO 1.4 FEET ABOVE LSD, APRIL 1984.

ALTITUDE OF LAND SURFACE 2556.7 FEET

RECORDS AVAILABLE 1939, 1952 TO CURRENT YEAR.

HIGHEST WATER LEVEL 135.90 FEET BELOW LAND SURFACE DATUM JAN 17, 1961.

LOWEST WATER LEVEL 151.30 FEET BELOW LAND SURFACE DATUM DEC 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 141.50 ; MAR 05, 1984 140.90 ; JUN 06, 1984 142.37 .

### WELL 33S 22W 30CBC 01 SITE NUMBER 370822099452801

33-22W-30CBC. KATHERINE KLINGER. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 168 FEET, DIAMETER 18 INCHES. MEASURING POINT, FLAP OPENING WEST OF PUMP, 0.71 FOOT ABOVE LSD. MEASURED BY KSBA.

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.09 FEET BELOW LAND SURFACE DATUM JAN 09, 1974.

LOWEST WATER LEVEL 42.75 FEET BELOW LAND SURFACE DATUM JUN 15, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 16.36 ; MAR 05, 1984 14.86 ; JUN 06, 1984 15.37 .

## CLAY COUNTY

### WELL 06S 01E 028CD 01 SITE NUMBER 393341097173201

6-1E-28CD. ARLO AARDAPPEL. DRILLED, WATER-TABLE IRRIGATION WELL IN TERRACE DEPOSITS. DEPTH 57 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1259.6 FEET

RECORDS AVAILABLE 1955, 1959 - 1966, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.75 FEET BELOW LAND SURFACE DATUM JUN 07, 1984.

LOWEST WATER LEVEL 12.0 FEET BELOW LAND SURFACE DATUM SEP 24, 1959.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 6.70 ; MAR 09, 1984 6.10 ; JUN 07, 1984 1.75 ; SEP 12, 1984 9.00 .

### WELL 06S 02E 29DAC 01 SITE NUMBER 392959097133801

6-2E-29DAC. LAWRENCE HELLIES ESTATE. DRILLED, ABANDONED, IRRIGATION WELL. DEPTH 54 FEET, DIAMETER 18 INCHES. MEASURING POINT, TOP OF CASING, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA. MP CHANGED TO 0.8 FOOT ABOVE LSD, JUNE 1973.

ALTITUDE OF LAND SURFACE 1242.4 FEET

RECORDS AVAILABLE 1955, 1962 - 1963, 1966, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.00 FEET BELOW LAND SURFACE DATUM JUN 24, 1970.

LOWEST WATER LEVEL 12.30 FEET BELOW LAND SURFACE DATUM SEP 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 9.30 ; MAR 09, 1984 9.50 ; JUN 07, 1984 6.75 ; SEP 12, 1984 12.30 .

### WELL 08S 02E 02CCA 01 SITE NUMBER 392256097105701

8-2E-2CCA. GLENN V. DITTMAR. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DEPTH 48 FEET, DIAMETER 18 INCHES. MEASURING POINT, TOP WEST SIDE OF CASING, 0.2 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1193. FEET

RECORDS AVAILABLE 1954, 1959, 1961, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.70 FEET BELOW LAND SURFACE DATUM JUN 07, 1984.

LOWEST WATER LEVEL 12.76 FEET BELOW LAND SURFACE DATUM DEC 08, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 11.80 ; MAR 09, 1984 11.40 ; JUN 07, 1984 8.70 ; SEP 12, 1984 11.90 .

## CLOUD COUNTY

WELL 05S 02W 01BAC 01 SITE NUMBER 393907097293701

5-2W-1BAC. MRS. MARY PALMER. DRILLED, WATER-TABLE IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 230 FEET, DIAMETER 20 INCHES. MEASURING POINT, FLAP ON SOUTH SIDE OF PUMP, 0.8 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1380. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 43.10 FEET BELOW LAND SURFACE DATUM JUN 09, 1983.

LOWEST WATER LEVEL 71.07 FEET BELOW LAND SURFACE DATUM SEP 09, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 44.90 ; MAR 09, 1984 43.60 .

## COMANCHE COUNTY

WELL 31S 18W 19ACB 01 SITE NUMBER 371958099190101

31-18W-19ACB. (3) E. DEEWALL. DRILLED, WATER-TABLE STOCK WELL IN THE OGALLALA FORMATION. DEPTH 96 FEET, DIAMETER 6 INCHES. REMEASURED OCTOBER 1961, 89 FEET. MEASURING POINT, TOP NORTH SIDE OF CASING BELOW PUMP BASE, 1.4 FEET ABOVE LSD. MP CHANGED TO 1.2 FEET ABOVE LSD, APRIL 1984. MEASURED BY KSBA.

RECORDS AVAILABLE 1940 - 1943, 1945 - 1947, 1953, 1955, 1957 TO CURRENT YEAR.

HIGHEST WATER LEVEL 63.14 FEET BELOW LAND SURFACE DATUM JUN 06, 1984.

LOWEST WATER LEVEL 94.07 FEET BELOW LAND SURFACE DATUM JUN 08, 1945.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 12, 1983 64.55 ; JUN 06, 1984 63.14 .

## CRAWFORD COUNTY

WELL 29S 23E 24DBA 01 SITE NUMBER 373020094501801

29-23E-24DBA. CITY OF GIRARD. DRILLED, UNUSED, WATER-TABLE MUNICIPAL WELL IN THE ROUBIDOUX FORMATION. DEPTH 1212 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP CUT-OUT OF PUMP, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 995. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 299.25 FEET BELOW LAND SURFACE DATUM JUN 05, 1978.

LOWEST WATER LEVEL 310.20 FEET BELOW LAND SURFACE DATUM SEP 13, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 06, 1983 303.50 ; MAR 06, 1984 304.45 ; JUN 04, 1984 304.30 ; SEP 13, 1984 310.20 .

WELL 30S 24E 19ADD 01 SITE NUMBER 372509094485501

30-24E-19ADD. ANGELO AND HUGO FARABI. DRILLED, UNUSED, WATER-TABLE MUNICIPAL WELL IN ROUBIDOUX FORMATION. DEPTH 955 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN CENTER OF COVER, 1.4 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 920. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 247.4 FEET BELOW LAND SURFACE DATUM JUN 05, 1978.

LOWEST WATER LEVEL 260.34 FEET BELOW LAND SURFACE DATUM SEP 13, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 06, 1983 253.05 ; MAR 06, 1984 251.97 ; JUN 04, 1984 252.20 ; SEP 13, 1984 260.34 .

## DECATUR COUNTY

### WELL 01S 29W 19BDD 01 SITE NUMBER 395708100370701

1-29W-19BDD. B. E. MCCARTNEY. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DEPTH 54 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE NORTH OF PUMP BASE, 0.7 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2572. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.07 FEET BELOW LAND SURFACE DATUM JUL 13, 1960.

LOWEST WATER LEVEL 26.76 FEET BELOW LAND SURFACE DATUM SEP 08, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1984 18.09 ; APR 09, 1934 17.20 ; JUN 04, 1984 16.13 ; SEP 13, 1984 18.15 .

### WELL 02S 30W 26DCC 01 SITE NUMBER 395037100391501

2-30W-26DCC. MARTHA MAY. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 228 FEET. MEASURING POINT, HOLE IN PUMP BASE, SOUTHWEST SIDE, 0.2 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2835. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 135.35 FEET BELOW LAND SURFACE DATUM APR 09, 1984.

LOWEST WATER LEVEL 152.59 FEET BELOW LAND SURFACE DATUM SEP 13, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1984 135.79 ; APR 09, 1984 135.35 ; JUN 04, 1984 137.53 .

### WELL 03S 29W 12BBA 01 SITE NUMBER 394846100314901

3-29W-12BBA. WARREN WHITE. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DEPTH 60 FEET, DIAMETER 18 INCHES. MEASURING POINT, TOP OF CASING UNDER HOLE IN SOUTHWEST OF PUMP BASE, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2556.1 FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 20.92 FEET BELOW LAND SURFACE DATUM JUL 13, 1960.

LOWEST WATER LEVEL 35.19 FEET BELOW LAND SURFACE DATUM MAR 04, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1984 25.32 ; APR 09, 1934 24.58 ; JUN 04, 1984 23.58 ; SEP 13, 1984 26.13 .

### WELL 04S 26W 08DDD 01 SITE NUMBER 394248100150801

4-26W-8DDD. R. M. HARRIS. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DIAMETER 18 INCHES, DEPTH 70 FEET. MEASURING POINT, HOLE IN SOUTHWEST CORNER OF PUMP-HEAD BASE, 1.25 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2455.7 FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.70 FEET BELOW LAND SURFACE DATUM JAN 21, 1972.

LOWEST WATER LEVEL 37.48 FEET BELOW LAND SURFACE DATUM SEP 13, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1984 30.35 ; APR 09, 1984 29.14 ; JUN 04, 1984 28.63 .

## DOUGLAS COUNTY

### WELL 12S 19E 13ADA 01 SITE NUMBER 390032095143801

12-19E-13ADA. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 42 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 821. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.75 FEET BELOW LAND SURFACE DATUM DEC 26, 1973.

LOWEST WATER LEVEL 13.03 FEET BELOW LAND SURFACE DATUM DEC 09, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 9.58 .

DOUGLAS COUNTY -- CONTINUED

WELL 12S 20E 07CBC 01 SITE NUMBER 390105095142901

12-20E-7CBC. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLIVIUM. DEPTH 29 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 826. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.50 FEET BELOW LAND SURFACE DATUM DEC 26, 1973.

LOWEST WATER LEVEL 17.40 FEET BELOW LAND SURFACE DATUM DEC 09, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 13.67 ; MAR 07, 1984 13.50 ; JUN 05, 1984 9.95 ; SEP 14, 1984 12.40

WELL 12S 20E 17CCB 01 SITE NUMBER 390006095132301

12-20E-17CCB. FRANK O. WALTERS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN NEWMAN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 50 FEET, DIAMETER 10 INCHES. MEASURING POINT, EAST SIDE OF HOLE IN TOP OF BOX, 1.5 FEET ABOVE LSD. MEASURING POINT CHANGED TO 2.5 FEET ABOVE LSD, AUGUST 24, 1977.

ALTITUDE OF LAND SURFACE 831. FEET

RECORDS AVAILABLE 1952 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.39 FEET BELOW LAND SURFACE DATUM FEB 05, 1962.

LOWEST WATER LEVEL 26.33 FEET BELOW LAND SURFACE DATUM MAR 30, 1957.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 05, 1983 | 21.64 | JAN 05, 1984 | 21.22 | APR 10, 1984 | 20.09 | JUL 10, 1984 | 17.45 |
| 10 | 21.71 | 10 | 21.20 | 15 | 19.72 | 15 | 17.72 |
| 15 | 21.77 | 15 | 21.17 | 20 | 19.55 | 20 | 18.07 |
| 20 | 21.78 | 20 | 21.19 | 25 | 19.40 | 25 | 18.40 |
| 25 | 21.79 | 25 | 21.10 | 30 | 19.20 | 31 | 18.80 |
| 31 | 21.67 | 31 | 21.12 | MAY 05 | 18.92 | AUG 05 | 19.15 |
| NOV 05 | 21.71 | FEB 05 | 21.21 | 10 | 18.85 | 10 | 19.43 |
| 10 | 21.68 | 10 | 21.28 | 15 | 18.92 | 15 | 19.61 |
| 15 | 21.68 | 15 | 21.26 | 20 | 18.92 | 20 | 19.95 |
| 20 | 21.55 | 20 | 21.29 | 25 | 19.02 | 25 | 20.15 |
| 25 | 21.50 | 29 | 21.62 | 31 | 18.74 | 31 | 20.31 |
| 30 | 21.27 | MAR 05 | 21.60 | JUN 05 | 18.73 | SEP 05 | 21.43 |
| DEC 05 | 21.12 | 10 | 21.60 | 10 | 18.65 | 10 | 20.46 |
| 10 | 21.15 | 15 | 21.63 | 15 | 18.50 | 15 | 20.59 |
| 15 | 21.00 | 20 | 21.42 | 20 | 18.50 | 20 | 20.66 |
| 20 | 21.20 | 25 | 20.92 | 25 | 17.32 | 25 | 20.73 |
| 25 | 21.20 | 31 | 20.66 | 30 | 17.29 | 30 | 20.80 |
| 31 | 21.19 | APR 05 | 20.40 | JUL 05 | 17.40 | | |

WELL 15S 19E 15AAD 01 SITE NUMBER 384501095164901

15-19E-15AAD. RURAL WATER DISTRICT NO. 5. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 190 FEET, DIAMETER 4 INCHES. MEASURING POINT, 2.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1120. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 40.87 FEET BELOW LAND SURFACE DATUM SEP 15, 1975.

LOWEST WATER LEVEL 51.90 FEET BELOW LAND SURFACE DATUM JUN 19, 1973.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 06, 1983 45.20 ; MAR 06, 1984 44.38 .

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EDWARDS COUNTY

WELL 23S 19W 22CCC 01 SITE NUMBER 380145099241301

23-19W-22CCC. (10) E. F. LIPPOLDT. DUG, UNUSED, WATER-TABLE DOMESTIC WELL IN THE DAKOTA FORMATION. DEPTH 68 FEET, DIAMETER 4.5 FEET, CRIBBED WITH ROCK. MEASURING POINT, TOP OF HOLE IN CONCRETE COVER, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2238. FEET

RECORDS AVAILABLE 1944 TO CURRENT YEAR.

HIGHEST WATER LEVEL 54.62 FEET BELOW LAND SURFACE DATUM MAR 18, 1981.

LOWEST WATER LEVEL 68.20 FEET BELOW LAND SURFACE DATUM MAR 13, 1946.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 16, 1983 59.05 ; MAR 07, 1984 59.01 ; JUN 12, 1984 59.12 ; SEP 06, 1984 58.73 .

WELL 24S 17W 24DDD 01 SITE NUMBER 375629099075901

24-17W-24DDD. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 61 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 4.3 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2100. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 13.31 FEET BELOW LAND SURFACE DATUM DEC 13, 1973.

LOWEST WATER LEVEL 32.28 FEET BELOW LAND SURFACE DATUM SEP 06, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 16, 1983 28.16 ; JAN 16, 1984 24.95 ; MAR 09, 1984 27.82 ; JUN 12, 1984 29.74 ;

SEP 06, 1984 32.28 .

WELL 24S 18W 36DDC 01 SITE NUMBER 375445099143901

24-18W-36DDC. GROVER J. MCLEAN. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 79 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTHEAST CORNER OF PUMP BASE, AT LAND SURFACE.

ALTITUDE OF LAND SURFACE 2149. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 23.68 FEET BELOW LAND SURFACE DATUM MAR 21, 1974.

LOWEST WATER LEVEL 42.98 FEET BELOW LAND SURFACE DATUM SEP 17, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 16, 1983 36.78 ; JAN 16, 1984 36.70 ; MAR 09, 1984 36.61 ; JUN 12, 1984 37.11 ;

SEP 06, 1984 39.69 .

WELL 24S 19W 34ADD 01 SITE NUMBER 375513099231701

24-19W-34ADD. (1A) USGS. BORED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 30 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.43 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2160. FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.99 FEET BELOW LAND SURFACE DATUM DEC 21, 1965.

LOWEST WATER LEVEL 10.12 FEET BELOW LAND SURFACE DATUM MAR 18, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 16, 1983 8.20 ; JAN 17, 1984 9.22 ; MAR 09, 1984 9.09 ; JUN 12, 1984 9.03 ;

SEP 06, 1984 8.56 .

EDWARDS COUNTY -- CONTINUED

WELL 25S 16W 31DCC 01 SITE NUMBER 374926099071601

25-16W-31DCC. DONALD MAYHEW. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 82 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP OF CASING, 2.0 FEET ABOVE LSD.

RECORDS AVAILABLE 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.10 FEET BELOW LAND SURFACE DATUM JAN 26, 1982.

LOWEST WATER LEVEL 26.89 FEET BELOW LAND SURFACE DATUM SEP 06, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 17, 1984 19.10 ; JUN 05, 1984 23.05 ; SEP 06, 1984 26.89 .

WELL 25S 18W 09AAA 01 SITE NUMBER 375346099174801

25-18W-9AAA. KGS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 74 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2161. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.61 FEET BELOW LAND SURFACE DATUM DEC 14, 1973.

LOWEST WATER LEVEL 29.65 FEET BELOW LAND SURFACE DATUM SEP 06, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 16, 1983 27.79 ; JAN 16, 1984 27.70 ; MAR 09, 1984 27.57 ; JUN 12, 1984 27.55 ;

SEP 06, 1984 29.65 .

WELL 25S 18W 33CDC 01 SITE NUMBER 374931099182901

25-18W-33CDC. GROVER J. MCLEAN. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 90 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTHWEST CORNER OF PUMP BASE, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2182. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 21.25 FEET BELOW LAND SURFACE DATUM MAR 21, 1974.

LOWEST WATER LEVEL 31.25 FEET BELOW LAND SURFACE DATUM SEP 17, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 16, 1983 28.97 ; JAN 17, 1984 28.85 ; MAR 09, 1984 28.89 ; JUN 12, 1984 28.93 ;

SEP 06, 1984 31.10 .

WELL 26S 19W 12ABB 02 SITE NUMBER 374803099205402

26-19W-12ABB2. JAMES KLINE. DRILLED, WATER-TABLE DOMESTIC WELL. DEPTH 100 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP OF CASING, 1.3 FEET ABOVE LSD. MEASURED BY KSBA. REPLACEMENT FOR 16-19W-12ABB, JANUARY 1979.

ALTITUDE OF LAND SURFACE 2210. FEET

RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 38.30 FEET BELOW LAND SURFACE DATUM JAN 24, 1981.

LOWEST WATER LEVEL 49.10 FEET BELOW LAND SURFACE DATUM JAN 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 16, 1983 46.86 ; JAN 17, 1984 49.10 ; MAR 09, 1984 46.79 ; JUN 12, 1984 48.15 ;

SEP 06, 1984 48.08 .

## ELLIS COUNTY

### WELL 14S 18W 12AAD 01 SITE NUMBER 385115099155401

14-18W-12AAD. ELLIS COUNTY. DRILLED, UNUSED, WATER-TABLE WELL. DEPTH 54 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 0.7 FOOT ABOVE LSD.

RECORDS AVAILABLE 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.34 FEET BELOW LAND SURFACE DATUM AUG 24, 1976.

LOWEST WATER LEVEL 27.37 FEET BELOW LAND SURFACE DATUM DEC 01, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 01, 1983 27.37 ; MAR 06, 1984 26.94 ; MAY 31, 1984 26.94 ; SEP 13, 1984 26.52 .

### WELL 14S 18W 12ABB 01 SITE NUMBER 385122099161801

14-18W-12ABB. HERB KOERNER. DRILLED, UNUSED, WATER-TABLE WELL. DEPTH 30 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD.

RECORDS AVAILABLE 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 22.34 FEET BELOW LAND SURFACE DATUM SEP 15, 1976.

LOWEST WATER LEVEL 25.08 FEET BELOW LAND SURFACE DATUM MAR 06, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 01, 1983 24.99 ; MAR 06, 1984 25.08 ; MAY 31, 1984 24.51 .

## ELLSWORTH COUNTY

### WELL 17S 09W 20BCD 01 SITE NUMBER 383335098204601

17-9W-20BCD. ALBERT KRUSE. DRILLED, WATER-TABLE DOMESTIC AND STOCK WELL. DEPTH 63 FEET, DIAMETER 6 INCHES. MEASURING POINT, STEEL RIM IN CONCRETE BASE, 0.8 FOOT ABOVE LSD. MEASURED BY KSBA.

RECORDS AVAILABLE 1961, 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 18.10 FEET BELOW LAND SURFACE DATUM MAR 17, 1975.

LOWEST WATER LEVEL WELL DRY SEP 09, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 25.41 ; MAR 12, 1984 24.90 ; JUN 08, 1984 20.95 ; SEP 10, 1984 23.50 .

### WELL 17S 09W 21BCC 01 SITE NUMBER 383334098194701

17-9W-21BCC. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL IN DAKOTA FORMATION. DEPTH 200 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.4 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1775. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 71.63 FEET BELOW LAND SURFACE DATUM MAR 09, 1983.

LOWEST WATER LEVEL 141.82 FEET BELOW LAND SURFACE DATUM SEP 09, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 90.38 ; MAR 12, 1984 78.13 ; JUN 08, 1984 83.10 ; SEP 10, 1984 140.37 .

### WELL 17S 09W 21BCC 02 SITE NUMBER 383334098194702

17-9W-21BCC2. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 65 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.6 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1775.00 FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.74 FEET BELOW LAND SURFACE DATUM JUN 23, 1976.

LOWEST WATER LEVEL 40.08 FEET BELOW LAND SURFACE DATUM DEC 14, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 36.95 ; MAR 12, 1984 36.69 ; JUN 08, 1984 35.26 .

ELLSWORTH COUNTY -- CONTINUED

WELL 17S 09W 28CBB 01 SITE NUMBER 383236098194701

17-9W-28CBB. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL IN DAKOTA FORMATION. DEPTH 207 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.4 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1766. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 62.61 FEET BELOW LAND SURFACE DATUM MAR 09, 1983.

LOWEST WATER LEVEL 140.36 FEET BELOW LAND SURFACE DATUM SEP 09, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 81.93 ; MAR 12, 1984 70.37 ; JUN 08, 1984 73.74 .

WELL 17S 09W 28CBB 02 SITE NUMBER 383236098194702

17-9W-28CBB2. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 77 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.7 FEET ABOVE LSD. MEASURED BY KSBA.

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 34.97 FEET BELOW LAND SURFACE DATUM SEP 13, 1975.

LOWEST WATER LEVEL 43.07 FEET BELOW LAND SURFACE DATUM FEB 04, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 38.03 ; MAR 12, 1984 38.49 ; JUN 08, 1984 37.60 ; SEP 10, 1984 37.48 .

WELL 17S 09W 31AAB 01 SITE NUMBER 383210098211001

17-9W-31AAB. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL IN DAKOTA FORMATION. DEPTH 162 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.7 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1762. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 59.11 FEET BELOW LAND SURFACE DATUM JUN 08, 1984.

LOWEST WATER LEVEL 128.57 FEET BELOW LAND SURFACE DATUM AUG 20, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 82.03 ; MAR 12, 1984 73.49 ; JUN 08, 1984 59.11 ; SEP 10, 1984 102.70 .

WELL 17S 09W 31AAB 02 SITE NUMBER 383210098211002

17-9W-31AAB2. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 39 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.3 FEET ABOVE LSD. MEASURED BY KSBA.

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 26.98 FEET BELOW LAND SURFACE DATUM DEC 20, 1978.

LOWEST WATER LEVEL 41.29 FEET BELOW LAND SURFACE DATUM JAN 25, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 39.69 ; MAR 12, 1984 39.69 ; JUN 08, 1984 38.67 .

WELL 17S 09W 31ADC 01 SITE NUMBER 383150098211001

17-9W-31ADC. HYDROCARBON TRAN., INC. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 245 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA.

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 56.72 FEET BELOW LAND SURFACE DATUM MAR 09, 1983.

LOWEST WATER LEVEL 121.75 FEET BELOW LAND SURFACE DATUM AUG 20, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 72.80 ; MAR 12, 1984 66.96 ; JUN 08, 1984 64.76 ; SEP 10, 1984 90.62 .

## FINNEY COUNTY

### WELL 21S 32W 20CBD C1 SITE NUMBER 381242100514201

21-32W-20CBD. L. ARCHER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 203 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2898. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 44.22 FEET BELOW LAND SURFACE DATUM MAR 15, 1965.

LOWEST WATER LEVEL 107.23 FEET BELOW LAND SURFACE DATUM OCT 07, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

APR 24, 1984 98.46 .

### WELL 21S 34W 14DBB C1 SITE NUMBER 381340101010701

21-34W-14DBB. PAT MCHUGH. DRILLED, WATER-TABLE IRRIGATION WELL IN NIOBRARA CHALK. DEPTH 141 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTH SIDE OF PUMP BASE, 0.9 FOOT ABOVE LSD. MEASURED BY KSBA

ALTITUDE OF LAND SURFACE 2947. FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 63.58 FEET BELOW LAND SURFACE DATUM SEP 29, 1964.

LOWEST WATER LEVEL 112.80 FEET BELOW LAND SURFACE DATUM JAN 18, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 02, 1984 105.46 ; APR 05, 1984 105.91 .

### WELL 22S 27W 14ADC C1 SITE NUMBER 380923100144801

22-27W-14ADC. LOUIS OMEY. DRILLED, WATER-TABLE IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 395 FEET, DIAMETER 16 INCHES. MEASURING POINT, PLUG IN NORTHEAST CORNER OF PUMP BASE, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2458. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 137.08 FEET BELOW LAND SURFACE DATUM MAR 11, 1971.

LOWEST WATER LEVEL 201.25 FEET BELOW LAND SURFACE DATUM SEP 16, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 14, 1983 192.66 ; JAN 31, 1984 180.90 ; APR 06, 1984 190.04 ; JUL 12, 1984 175.28 .

### WELL 22S 33W 22BAA C1 SITE NUMBER 380801100554801

22-33W-22BAA. O. TRENT. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 184 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 0.1 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2900.0 FEET

RECORDS AVAILABLE 1960, 1962 - 1963, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 37.03 FEET BELOW LAND SURFACE DATUM FEB 01, 1962.

LOWEST WATER LEVEL 108.36 FEET BELOW LAND SURFACE DATUM JUL 27, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 02, 1984 94.75 ; APR 24, 1984 100.01 ; JUL 27, 1984 108.36 .

### WELL 22S 33W 36AAA C2 SITE NUMBER 380616100530402

22-33W-36AAA2. GEORGE M. MAHN. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 190 FEET, DIAMETER 16 INCHES. MEASURING POINT, 1-INCH HOLE IN STEEL CAP, TOP OF CASING, 3.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2860. FEET

RECORDS AVAILABLE 1958, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 18.46 FEET BELOW LAND SURFACE DATUM MAR 18, 1964.

LOWEST WATER LEVEL 85.58 FEET BELOW LAND SURFACE DATUM SEP 14, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 07, 1983 82.85 S; FEB 02, 1984 70.00 ; APR 24, 1984 64.59 ; JUL 27, 1984 78.28 .

FINNEY COUNTY -- CONTINUED

WELL 22S 34W 26ADD 01 SITE NUMBER 380648101004301

22-34W-26ADD. TRINKLE ESTATE. DRILLED, UNUSED, WATER-TABLE DOMESTIC AND STOCK WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS. DEPTH 163 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP EDGE OF 3 X 3 WOOD CLAMP, 0.9 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2928. FEET

RECORDS AVAILABLE 1957 TO CURRENT YEAR.

HIGHEST WATER LEVEL 49.43 FEET BELOW LAND SURFACE DATUM MAR 31, 1959.

LOWEST WATER LEVEL 159.70 FEET BELOW LAND SURFACE DATUM FEB 02, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 07, 1983 158.13 ; FEB 02, 1984 159.70 ; APR 24, 1984 157.96 ; JUL 13, 1984 159.01 .

WELL 23S 27W 12CCC 01 SITE NUMBER 380333100143301

23-27W-12CCC. C. R. RIXON. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 72 FEET, DIAMETER 6 INCHES. MEASURING POINT, 1-INCH BOARD ON TOP OF CONCRETE BLOCK, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2618. FEET

RECORDS AVAILABLE 1939 - 1942, 1952 TO CURRENT YEAR.

HIGHEST WATER LEVEL 60.33 FEET BELOW LAND SURFACE DATUM JAN 31, 1984.

LOWEST WATER LEVEL 68.49 FEET BELOW LAND SURFACE DATUM OCT 02, 1941.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 14, 1983 61.01 ; JAN 31, 1984 60.33 ; APR 06, 1984 60.43 ; JUL 12, 1984 61.03 .

WELL 23S 33W 17BBB 01 SITE NUMBER 380339100582401

23-33W-17BBB. GARDEN CITY CO. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 340 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN EAST SIDE OF PUMP BASE, 1.3 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2904. FEET

RECORDS AVAILABLE 1958, 1961 - 1976, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 40.0 FEET BELOW LAND SURFACE DATUM APR 28, 1958.

LOWEST WATER LEVEL 168.03 FEET BELOW LAND SURFACE DATUM OCT 15, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 02, 1984 153.40 .

WELL 23S 33W 28CDC 01 SITE NUMBER 380109100570201

23-33W-28CDC. ANDREW BURGHARDT. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 300 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP NORTH SIDE OF BASE, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2904. FEET

RECORDS AVAILABLE 1958, 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 50.2 FEET BELOW LAND SURFACE DATUM APR 01, 1958.

LOWEST WATER LEVEL 169.16 FEET BELOW LAND SURFACE DATUM APR 29, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 07, 1983 156.33 ; FEB 01, 1984 127.15 ; APR 05, 1984 129.73 ; JUL 13, 1984 125.00 .

FINNEY COUNTY -- CONTINUED

WELL 23S 34W 21DDC 01 SITE NUMBER 380201101030101

23-34W-21DDC. P. W. TURRENTINE. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 300 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CONCRETE, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2961. FEET

RECORDS AVAILABLE 1958, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 51.3 FEET BELOW LAND SURFACE DATUM MAY 13, 1958.

LOWEST WATER LEVEL 183.54 FEET BELOW LAND SURFACE DATUM SEP 01, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 01, 1983 | 181.80 | JAN 01, 1984 | 151.22 | APR 01, 1984 | 152.00 | JUL 01, 1984 | 174.67 |
| 28 | 178.56 S | FEB 01 | 146.80 | 25 | 158.60 | AUG 01 | 174.67 |
| NOV 01 | 176.30 | 02 | 147.14 | MAY 01 | 155.96 | SEP 01 | 174.30 |
| DEC 01 | 157.50 | MAR 01 | 143.79 | JUN 01 | 142.11 | | |

WELL 24S 31W 27CCB 01 SITE NUMBER 375558100430401

24-31W-27CCB. (1002) CITY OF GARDEN CITY. DRILLED, WATER-TABLE INDUSTRIAL WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 295 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CASING, WEST, 0.8 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2883. FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 110.26 FEET BELOW LAND SURFACE DATUM NOV 09, 1953.

LOWEST WATER LEVEL 136.69 FEET BELOW LAND SURFACE DATUM OCT 15, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 02, 1984 129.91 .

WELL 24S 32W 03DAC 01 SITE NUMBER 375936100484901

24-32W-3DAC. (26) GARDEN CITY EXPERIMENT STATION. DRILLED, UNUSED, WATER-TABLE WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 155 FEET, DIAMETER 26 INCHES. MEASURING POINT, TOP OF CASING, AT LAND SURFACE. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2881. FEET

RECORDS AVAILABLE 1934, 1939 TO CURRENT YEAR.

HIGHEST WATER LEVEL 63.85 FEET BELOW LAND SURFACE DATUM OCT 29, 1951.

LOWEST WATER LEVEL 109.63 FEET BELOW LAND SURFACE DATUM OCT 14, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 14, 1983 109.63 ; FEB 15, 1984 107.82 ; APR 06, 1984 108.36 ; JUL 12, 1984 106.08 .

WELL 24S 33W 09CCD 01 SITE NUMBER 375832100571001

24-33W-9CCD. KGS-USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 210 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP OF CASING, 1.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2865. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 47.53 FEET BELOW LAND SURFACE DATUM MAR 15, 1978.

LOWEST WATER LEVEL 129.40 FEET BELOW LAND SURFACE DATUM AUG 01, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 28, 1983 | 105.74 | JAN 02, 1984 | 68.60 | APR 24, 1984 | 67.24 | AUG 01, 1984 | 109.76 |
| NOV 01 | 104.20 | 25 | 70.58 | MAY 01 | 64.50 | SEP 01 | 127.50 |
| DEC 01 | 76.85 | MAR 01 | 65.28 | JUN 01 | 69.10 | | |
| JAN 01, 1984 | 71.23 | APR 01 | 64.55 | JUL 01 | 109.76 | | |

FINNEY COUNTY -- CONTINUED

WELL 24S 33W 09CCD 02 SITE NUMBER 375832100571002

24-33W-9CCD2. KGS - USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 55 FEET, DIAMETER 5 INCHES. MESURING POINT, TOP OF CASING, 1.25 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2865. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 22.76 FEET BELOW LAND SURFACE DATUM NOV 15, 1978.

LOWEST WATER LEVEL 37.77 FEET BELOW LAND SURFACE DATUM FEB 01, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 01, 1983 | 35.47 | JAN 25, 1984 | 35.97 | APR 01, 1984 | 30.63 | AUG 01, 1984 | 30.26 |
| 28 | 35.87 | FEB 01 | 34.46 | 24 | 30.69 | SEP 01 | 29.77 |
| JAN 01, 1984 | 34.97 | MAR 01 | 32.31 | MAY 01 | 29.18 | | |

WELL 24S 33W 22BCC 01 SITE NUMBER 375713100561301

24-33W-22BCC. DEAN GIGOT. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 300 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 0.9 FOOT ABOVE LSD MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2888. FEET

RECORDS AVAILABLE 1975, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 59.44 FEET BELOW LAND SURFACE DATUM JUL 17, 1975.

LOWEST WATER LEVEL 83.74 FEET BELOW LAND SURFACE DATUM OCT 21, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 83.44 ; FEB 14, 1984 82.29 ; APR 05, 1984 81.50 ; JUL 13, 1984 81.81 .

WELL 24S 33W 22DCA 01 SITE NUMBER 375654100553201

24-33W-22DCA. GIGOT WELL NO. 21. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 373 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE INSIDE PUMP BASE, NORTH SIDE, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2905. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 75.88 FEET BELOW LAND SURFACE DATUM FEB 22, 1973.

LOWEST WATER LEVEL 120.68 FEET BELOW LAND SURFACE DATUM APR 15, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 114.80 ; FEB 14, 1984 116.43 ; APR 05, 1984 115.08 .

WELL 24S 33W 28DAA 01 SITE NUMBER 375614100562101

24-33W-28DAA. GIGOT WELL NO. 41. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 350 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE INSIDE PUMP, NORTHEAST SIDE, 0.6 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2886. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 60.37 FEET BELOW LAND SURFACE DATUM MAR 07, 1974.

LOWEST WATER LEVEL 112.66 FEET BELOW LAND SURFACE DATUM OCT 21, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 110.43 ; FEB 14, 1984 98.64 ; APR 05, 1984 102.25 .

FINNEY COUNTY -- CONTINUED

WELL 25S 33W 03BCC 01 SITE NUMBER 375436100561301

25-33W-3BCC. DEAN GIGOT. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 300 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 1.4 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2902.00 FEET

RECORDS AVAILABLE 1975, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 51.37 FEET BELOW LAND SURFACE DATUM APR 05, 1984.

LOWEST WATER LEVEL 56.98 FEET BELOW LAND SURFACE DATUM JUL 17, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 52.47 ; FEB 14, 1984 51.60 ; APR 05, 1984 51.37 ; JUL 13, 1984 53.28 .

WELL 25S 33W 05ABD 01 SITE NUMBER 375449100574301

25-33W-5ABD. GIGOT WELL NO. 56. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 420 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTHEAST SIDE, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2920. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 70.16 FEET BELOW LAND SURFACE DATUM MAR 07, 1974.

LOWEST WATER LEVEL 123.11 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 118.53 ; FEB 14, 1984 113.27 ; APR 05, 1984 114.22 .

WELL 25S 33W 09ABD 01 SITE NUMBER 375357100563701

25-33W-9ABD. GIGOT WELL NO. 31. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 400 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, NORTHEAST SIDE, 0.3 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2909. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 76.63 FEET BELOW LAND SURFACE DATUM MAR 07, 1974.

LOWEST WATER LEVEL 127.59 FEET BELOW LAND SURFACE DATUM OCT 03, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 119.39 ; FEB 14, 1984 109.62 ; APR 05, 1984 112.03 .

WELL 25S 33W 15DAC 01 SITE NUMBER 375239100552401

25-33W-15DAC. GIGOT WELL NO. 1. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH NOT REPORTED, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, NORTHEAST SIDE, 0.26 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2915. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 93.04 FEET BELOW LAND SURFACE DATUM FEB 27, 1972.

LOWEST WATER LEVEL 142.34 FEET BELOW LAND SURFACE DATUM SEP 11, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 132.27 ; FEB 14, 1984 129.34 ; APR 05, 1984 127.26 .

WELL 25S 33W 16DCC 01 SITE NUMBER 375226100564601

25-33W-16DCC. DEAN GIGOT. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 300 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 1.2 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2920.00 FEET

RECORDS AVAILABLE 1975, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 78.04 FEET BELOW LAND SURFACE DATUM JUL 17, 1975.

LOWEST WATER LEVEL 89.83 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 89.44 ; FEB 14, 1984 87.68 ; APR 05, 1984 86.22 ; JUL 13, 1984 89.01 .

FINNEY COUNTY -- CONTINUED

WELL 25S 33W 17DBD 01 SITE NUMBER 375239100574301

25-33W-17DBD. GIGOT WELL NO. 51. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 473 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE INSIDE PUMP BASE, NORTHWEST SIDE, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2940. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 100.04 FEET BELOW LAND SURFACE DATUM DEC 13, 1973.

LOWEST WATER LEVEL 135.79 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 128.56 ; FEB 14, 1984 126.93 ; APR 05, 1984 128.13 .

WELL 25S 34W 06AAA 01 SITE NUMBER 375456101050301

25-34W-6AAA. DEAN GIGOT. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 300 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 1.24 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2972. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 67.26 FEET BELOW LAND SURFACE DATUM APR 01, 1975.

LOWEST WATER LEVEL 104.89 FEET BELOW LAND SURFACE DATUM OCT 21, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 04, 1984 102.29 .

WELL 25S 34W 10ABB 01 SITE NUMBER 375404101021201

25-34W-10ABB. DEAN GIGOT. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 300 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 1.85 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2962. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 68.15 FEET BELOW LAND SURFACE DATUM APR 01, 1975.

LOWEST WATER LEVEL 96.21 FEET BELOW LAND SURFACE DATUM OCT 27, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 96.21 ; FEB 13, 1984 93.29 ; APR 05, 1984 92.76 ; JUL 13, 1984 93.14 .

WELL 25S 34W 34DBD 01 SITE NUMBER 375002101020401

25-34W-34DBD. H. BROWNLEE. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH NOT REPORTED, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2945. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 73.77 FEET BELOW LAND SURFACE DATUM JAN 22, 1970.

LOWEST WATER LEVEL 111.36 FEET BELOW LAND SURFACE DATUM OCT 21, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 106.04 ; FEB 13, 1984 108.80 ; APR 05, 1984 107.99 .

WELL 26S 33W 26ABB 01 SITE NUMBER 374553100534701

26-33W-26ABB. C. J. VOTH. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 340 FEET, DIAMETER 16 INCHES. MEASURING POINT, EDGE OF CUT-OUT ON SOUTH SIDE, 1.3 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2929. FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 115.53 FEET BELOW LAND SURFACE DATUM FEB 01, 1961.

LOWEST WATER LEVEL 160.18 FEET BELOW LAND SURFACE DATUM OCT 23, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 154.28 ; FEB 13, 1984 154.90 ; APR 05, 1984 157.34 .

## FORD COUNTY

### WELL 25S 22W 20AAA 01 SITE NUMBER 375206099451001

25-22W-20AAA. MARY ARENDS. DRILLED, WATER-TABLE CEMETERY WELL IN THE OGALLALA FORMATION. DEPTH 72 FEET, DIAMETER 5.50 INCHES. MEASURING POINT, HOLE IN PUMP BASE, UNDER PUMP HANDLE, 0.2 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2437.9 FEET

RECORDS AVAILABLE 1939, 1951 TO CURRENT YEAR.

HIGHEST WATER LEVEL 59.83 FEET BELOW LAND SURFACE DATUM JUN 15, 1983.

LOWEST WATER LEVEL 67.75 FEET BELOW LAND SURFACE DATUM OCT 18, 1953.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 16, 1983 60.66 ; MAR 07, 1984 60.62 ; JUN 12, 1984 60.60 ; SEP 06, 1984 61.98 .

### WELL 25S 22W 27CCD 01 SITE NUMBER 375028099434701

25-22W-27CCD. JAMES NIETLING. DRILLED, WATER-TABLE OBSERVATION WELL IN THE DAKOTA SANDSTONE FORMATION. DEPTH 240 FEET. MEASURING POINT, 6-INCH HOLE, EAST SIDE OF CONCRETE, TOP OF WELL PIT, 0.6 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2432. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 112.02 FEET BELOW LAND SURFACE DATUM JUN 25, 1980.

LOWEST WATER LEVEL 147.70 FEET BELOW LAND SURFACE DATUM NOV 24, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 15, 1983 123.11 ; MAR 07, 1984 122.90 ; JUN 12, 1984 117.42 ; SEP 06, 1984 127.01 .

### WELL 25S 23W 12BBB 01 SITE NUMBER 375353099482001

25-23W-12BBB. ANTHONY INDIEK. DRILLED, ARTESIAN OBSERVATION WELL IN DAKOTA FORMATION. DEPTH 362 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, HOLE IN TOP OF CASING, 4.2 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2390. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 116.70 FEET BELOW LAND SURFACE DATUM MAY 23, 1973.

LOWEST WATER LEVEL 171.68 FEET BELOW LAND SURFACE DATUM SEP 06, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 16, 1983 152.62 ; MAR 07, 1984 150.91 ; JUN 13, 1984 152.48 ; SEP 06, 1984 171.68 .

### WELL 25S 23W 14ADD 01 SITE NUMBER 375241099482901

25-23W-14ADD. TOM GLEASON. DRILLED, WATER-TABLE DOMESTIC AND STOCK WELL IN DAKOTA FORMATION. DEPTH 263 FEET, DIAMETER 5 INCHES. MEASURING POINT, HOLE IN PUMP BASE, NORTH, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2452. FEET

RECORDS AVAILABLE 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 156.40 FEET BELOW LAND SURFACE DATUM APR 11, 1969.

LOWEST WATER LEVEL 226.26 FEET BELOW LAND SURFACE DATUM SEP 22, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 16, 1983 208.79 ; JUN 13, 1984 213.20 .

### WELL 26S 21W 17DBC 01 SITE NUMBER 374632099381801

26-21W-17DBC. LARRY STRONG. DRILLED, WATER-TABLE OBSERVATION WELL IN THE DAKOTA FORMATION. DEPTH NOT REPORTED. MEASURING POINT, NORTH EDGE OF CASING, 0.6 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2348. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 48.52 FEET BELOW LAND SURFACE DATUM MAY 23, 1973.

LOWEST WATER LEVEL 73.65 FEET BELOW LAND SURFACE DATUM SEP 22, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 16, 1983 60.80 ; MAR 05, 1984 58.49 ; JUN 12, 1984 57.59 ; SEP 06, 1984 67.77 .

FORD COUNTY -- CONTINUED

WELL 26S 21W 23ADA C1 SITE NUMBER 374559099343801

26-21W-23ADA. (96A) HENRY HATRUP. DRIVEN, UNUSED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 12 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA. THIS WELL REPLACED A FILLED IN IRRIGATION WELL ON JANUARY 16, 1956. DEPTH OF ORIGINAL WELL WAS 29 FEET, MP WAS 0.8 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2262.4 FEET

RECORDS AVAILABLE 1938 - 1954, 1956 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.40 FEET BELOW LAND SURFACE DATUM MAR 27, 1973.

LOWEST WATER LEVEL 11.02 FEET BELOW LAND SURFACE DATUM SEP 05, 1939.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 16, 1983 8.74 ; MAR 06, 1984 8.57 ; JUN 12, 1984 7.72 ; SEP 06, 1984 8.49 .

WELL 26S 23W 10DAD C1 SITE NUMBER 374725099485601

26-23W-10DAD. JAMES A. MCGUIN. DRILLED, UNUSED, ARTESIAN WELL IN DAKOTA FORMATION. DEPTH 280 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP WEST SIDE OF 16-INCH CASING, 0.8 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2463. FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 123.19 FEET BELOW LAND SURFACE DATUM APR 11, 1969.

LOWEST WATER LEVEL 188.86 FEET BELOW LAND SURFACE DATUM SEP 22, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 15, 1983 175.79 ; MAR 06, 1984 177.04 .

WELL 26S 24W 29DDD C1 SITE NUMBER 374442099573601

26-24W-29DDD. USGS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 209 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.9 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2575. FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 130.74 FEET BELOW LAND SURFACE DATUM NOV 26, 1973.

LOWEST WATER LEVEL 150.71 FEET BELOW LAND SURFACE DATUM JUL 02, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 14, 1983 134.69 ; MAR 06, 1984 133.47 ; JUN 13, 1984 136.41 ; SEP 06, 1984 144.99 .

WELL 26S 24W 31DDA C1 SITE NUMBER 374356099584201

26-24W-31DDA. DEAN WILSON. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 112 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 4.3 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2463.3 FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.62 FEET BELOW LAND SURFACE DATUM FEB 21, 1973.

LOWEST WATER LEVEL 32.76 FEET BELOW LAND SURFACE DATUM JUN 15, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 14, 1983 14.94 ; MAR 06, 1984 17.28 ; JUN 13, 1984 20.24 ; SEP 05, 1984 25.49 .

WELL 26S 24W 32CBA C1 SITE NUMBER 374409099582501

26-24W-32CBA. FARMLAND INDUSTRIES. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 136 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2468.9 FEET

RECORDS AVAILABLE 1962, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.30 FEET BELOW LAND SURFACE DATUM JUL 07, 1967.

LOWEST WATER LEVEL 48.33 FEET BELOW LAND SURFACE DATUM JUN 15, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 14, 1983 22.35 ; MAR 06, 1984 24.13 ; JUN 13, 1984 25.30 .

## FORD COUNTY -- CONTINUED

### WELL 26S 24W 32DDA 01 SITE NUMBER 374356099573601

26-24W-32DDA. RICHARD GRIBBLE. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 104 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.6 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2463.6 FEET

RECORDS AVAILABLE 1938, 1968 TO CURRENT YEAR, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 18.65 FEET BELOW LAND SURFACE DATUM FEB 22, 1973.

LOWEST WATER LEVEL 47.00 FEET BELOW LAND SURFACE DATUM JUL 15, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 14, 1983 25.50 ; MAR 06, 1984 24.17 ; JUN 13, 1984 23.39 .

### WELL 26S 24W 33CDA 01 SITE NUMBER 374357099570301

26-24W-33CDA. WINTER INVESTMENTS, INC. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION DEPTH 126 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2466.4 FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 26.67 FEET BELOW LAND SURFACE DATUM APR 27, 1973.

LOWEST WATER LEVEL 55.74 FEET BELOW LAND SURFACE DATUM JUL 18, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 30.33 ; MAR 06, 1984 28.39 ; JUN 13, 1984 35.01 ; SEP 05, 1984 42.26 .

### WELL 26S 25W 34BBB 01 SITE NUMBER 374445100025501

26-25W-34BBB. (8) F. H. DIEHL. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DEPTH 20 FEET, DIAMETER 20 INCHES. MEASURING POINT, TOP OF CASING, 0.8 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2490.2 FEET

RECORDS AVAILABLE 1938 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.51 FEET BELOW LAND SURFACE DATUM JUL 02, 1942.

LOWEST WATER LEVEL 15.59 FEET BELOW LAND SURFACE DATUM DEC 13, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 15.18 ; MAR 05, 1984 14.97 ; JUN 12, 1984 13.89 .

### WELL 26S 26W 32DCC 01 SITE NUMBER 374403100110601

26-26W-32DCC. IRSIK AND DOLL. DRILLED, WATER-TABLE OBSERVATION AND STOCK WELL. DEPTH 124 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF CASING, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2616. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 71.14 FEET BELOW LAND SURFACE DATUM DEC 29, 1981.

LOWEST WATER LEVEL 84.07 FEET BELOW LAND SURFACE DATUM DEC 13, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 84.07 ; MAR 05, 1984 82.45 ; JUN 12, 1984 81.76 .

### WELL 27S 23W 24BCB 01 SITE NUMBER 374048099474001

27-23W-24BCB. DUANE REIGLE. DRILLED, WATER-TABLE IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 220 FEET, DIAMETER 16 INCHES. MEASURING POINT, BACK OF PUMP BASE, NORTHWEST SIDE, 0.4 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2395. FEET

RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.40 FEET BELOW LAND SURFACE DATUM MAR 21, 1974.

LOWEST WATER LEVEL 116.69 FEET BELOW LAND SURFACE DATUM SEP 06, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 30.26 ; MAR 06, 1984 24.19 ; JUN 12, 1984 67.43 ; SEP 06, 1984 116.69 .

FORD COUNTY -- CONTINUED

WELL 27S 24W 03BBD 01 SITE NUMBER 374337099561401

27-24W-3BBD. STATE OF KANSAS. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 95 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF CASING, 2.3 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2455.2 FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.25 FEET BELOW LAND SURFACE DATUM APR 27, 1973.

LOWEST WATER LEVEL 43.02 FEET BELOW LAND SURFACE DATUM AUG 20, 1973.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 24.32 ; MAR 06, 1984 24.15 ; SEP 05, 1984 24.35 .

WELL 27S 24W 03CCD 01 SITE NUMBER 374258099555701

27-24W-3CCD. MARILYN RING. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 96 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF CASING, 0.4 FOOT ABOVE LSD.

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.06 FEET BELOW LAND SURFACE DATUM APR 25, 1975.

LOWEST WATER LEVEL 43.95 FEET BELOW LAND SURFACE DATUM JUL 25, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 01, 1983 | 15.35 | JAN 01, 1984 | 11.28 | APR 01, 1984 | 10.09 | AUG 01, 1984 | 29.48 |
| NOV 01 | 12.60 | 03 | 11.12 | MAY 01 | 9.13 | SEP 01 | 26.36 |
| 08 | 11.57 | FEB 01 | 11.14 | JUN 01 | 15.02 | | |
| DEC 01 | 10.54 | MAR 01 | 10.21 | 13 | 25.72 | | |
| 13 | 10.67 | 05 | 10.23 | JUL 01 | 22.76 | | |

WELL 27S 24W 04BBC 01 SITE NUMBER 374337099572801

27-24W-4BBC. SAMUEL M. CAUGHRON. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 119 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.8 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2453.0 FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.24 FEET BELOW LAND SURFACE DATUM DEC 13, 1974.

LOWEST WATER LEVEL 39.30 FEET BELOW LAND SURFACE DATUM JUN 15, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 15, 1983 13.81 ; MAR 06, 1984 14.38 ; JUN 13, 1984 22.66 ; SEP 05, 1984 23.24 .

WELL 27S 24W 09AAD 01 SITE NUMBER 374245099563001

27-24W-9AAD. RENICK + DOLL CATTLE COMPANY. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 160 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF CASING, 3.1 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2448. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.40 FEET BELOW LAND SURFACE DATUM APR 27, 1973.

LOWEST WATER LEVEL 51.07 FEET BELOW LAND SURFACE DATUM JUL 22, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

NOV 08, 1983 21.00 ; DEC 13, 1983 19.10 ; JAN 03, 1984 19.26 ; MAR 06, 1984 18.80 .

## FORD COUNTY -- CONTINUED

### WELL 27S 24W 16BDB 01 SITE NUMBER 374144099571101

27-24W-16BDB. RENICK AND DOLL. DRILLED, WATER-TABLE IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 100 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF 1/2-INCH PIPE THROUGH PUMP BASE, 0.4 FOOT ABOVE LSD. REPLACED 27-24W-16BDA, JULY 1978.

ALTITUDE OF LAND SURFACE 2515. FEET

RECORDS AVAILABLE 1973, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 72.53 FEET BELOW LAND SURFACE DATUM JAN 22, 1980.

LOWEST WATER LEVEL 96.88 FEET BELOW LAND SURFACE DATUM SEP 15, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 74.56 ; MAR 06, 1984 74.38 .

### WELL 28S 24W 08DCC 01 SITE NUMBER 373652099575901

28-24W-8DCC. T. W. BELL. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH NOT REPORTED. MEASURING POINT, 1.25-INCH PLUG IN BASE, SOUTHWEST, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2578. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 132.16 FEET BELOW LAND SURFACE DATUM JUN 15, 1977.

LOWEST WATER LEVEL 153.94 FEET BELOW LAND SURFACE DATUM MAR 19, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 138.14 ; MAR 05, 1984 137.75 ; JUN 12, 1984 140.25 .

### WELL 28S 25W 06ABB 01 SITE NUMBER 373838100053901

28-25W-6ABB. C. W. SWITZER. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH 189 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE SOUTHWEST CORNER OF PUMP BASE, 0.2 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2643. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 138.31 FEET BELOW LAND SURFACE DATUM MAR 24, 1972.

LOWEST WATER LEVEL 152.38 FEET BELOW LAND SURFACE DATUM SEP 05, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 147.90 ; MAR 05, 1984 147.10 ; SEP 05, 1984 152.38 .

### WELL 28S 26W 13CAA 01 SITE NUMBER 373632100065401

28-26W-13CAA. ALBERT GREENWOOD. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 218 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF CASING, 1.6 FEET ABOVE LSD. REPLACES 28S 26W 13BDD 01. MEASURED BY KSBA.

RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 132.71 FEET BELOW LAND SURFACE DATUM APR 05, 1979.

LOWEST WATER LEVEL 155.49 FEET BELOW LAND SURFACE DATUM SEP 05, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 137.05 ; MAR 05, 1984 136.55 ; JUN 12, 1984 154.33 ; SEP 05, 1984 155.49

### WELL 29S 21W 05BBB 01 SITE NUMBER 373309099384901

29-21W-5BBB. E. R. AND M. L. ESTES. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 131 FEET, DIAMETER 16 INCHES. MEASURING POINT, FLAP IN NORTH SIDE OF PUMP BASE, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2418. FEET

RECORDS AVAILABLE 1956, 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 79.50 FEET BELOW LAND SURFACE DATUM MAY 05, 1956.

LOWEST WATER LEVEL 115.21 FEET BELOW LAND SURFACE DATUM SEP 15, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 99.59 ; MAR 05, 1984 106.04 ; SEP 04, 1984 101.53 .

## FORD COUNTY -- CONTINUED

### WELL 29S 26W 29ABB 01 SITE NUMBER 372957100110901

29-26W-29ABB. O. J. DEAVER. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH 178 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE NORTH SIDE OF PUMP BASE, AT LAND SURFACE.

ALTITUDE OF LAND SURFACE 2558. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 60.75 FEET BELOW LAND SURFACE DATUM JUN 11, 1975.

LOWEST WATER LEVEL 92.36 FEET BELOW LAND SURFACE DATUM APR 28, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 26, 1983 90.00 ; APR 12, 1984 89.91 .

## GEARY COUNTY

### WELL 11S 06E 27CBB 01 SITE NUMBER 390356096455601

11-6E-27CBB. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 65 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1057. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 13.07 FEET BELOW LAND SURFACE DATUM SEP 11, 1984.

LOWEST WATER LEVEL 20.82 FEET BELOW LAND SURFACE DATUM MAR 14, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 13.45 ; MAR 08, 1984 13.65 ; JUN 06, 1984 13.47 ; SEP 11, 1984 13.07 .

## GOVE COUNTY

### WELL 11S 26W 04CDC 01 SITE NUMBER 390709100125401

11-26W-4CDC. J. C. STERRETT. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 167 FEET, DIAMETER 12 INCHES. MEASURING POINT, HOLE NORTHEAST SIDE OF PUMP, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2583. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 60.00 FEET BELOW LAND SURFACE DATUM JUL 02, 1970.

LOWEST WATER LEVEL 85.29 FEET BELOW LAND SURFACE DATUM SEP 12, 1973.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 64.67 ; JUN 05, 1984 62.82 ; SEP 11, 1984 66.48 .

### WELL 11S 27W 36BCC 01 SITE NUMBER 390316100163201

11-27W-36BCC. MERTON IKENBERRY. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 142 FEET, DIAMETER 12 INCHES. MEASURING POINT, HOLE IN PUMP BASE, SOUTHWEST SIDE, 0.6 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2676. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 75.09 FEET BELOW LAND SURFACE DATUM JUN 09, 1976.

LOWEST WATER LEVEL 82.23 FEET BELOW LAND SURFACE DATUM MAR 18, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 78.23 ; APR 12, 1984 77.44 ; JUN 05, 1984 77.81 .

## GOVE COUNTY -- CONTINUED

WELL 11S 29W 04DAD C1 SITE NUMBER 390723100320801

11-29W-4DAD. ALBERT HOOVER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 171 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN SOUTHWEST SIDE PUMP BASE, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2844. FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 111.76 FEET BELOW LAND SURFACE DATUM JUN 06, 1979.

LOWEST WATER LEVEL 128.29 FEET BELOW LAND SURFACE DATUM SEP 15, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 113.44 ; JUN 05, 1984 118.05 ; SEP 11, 1984 116.26 .

WELL 11S 30W 27ABB C1 SITE NUMBER 390428100380701

11-30W-27ABB. W. J. KARLIN. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 166 FEET, DIAMETER 12 INCHES. MEASURING POINT, CUTOUT EAST SIDE OF PUMP, 0.8 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2922. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 118.06 FEET BELOW LAND SURFACE DATUM APR 27, 1970.

LOWEST WATER LEVEL 137.99 FEET BELOW LAND SURFACE DATUM SEP 15, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 131.78 ; APR 12, 1984 129.56 ; SEP 11, 1984 132.13 .

## GRAHAM COUNTY

WELL 06S 24W 28BAB C1 SITE NUMBER 393032100002001

6-24W-28BAB. ALLEN DAY. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 212 FEET, MEASURING POINT, HOLE NORTHEAST SIDE OF PUMP BASE, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2473. FEET

RECORDS AVAILABLE 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 90.05 FEET BELOW LAND SURFACE DATUM JUN 14, 1982.

LOWEST WATER LEVEL 108.93 FEET BELOW LAND SURFACE DATUM SEP 10, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 06, 1984 104.70 ; JUN 04, 1984 99.44 ; SEP 10, 1984 108.93 .

WELL 06S 24W 35DDD C1 SITE NUMBER 392554099572501

6-24W-35DDD. OLA KEITH. DRILLED, UNUSED, WATER-TABLE STOCK WELL IN OGALLALA FORMATION. DEPTH 153 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2492. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 141.53 FEET BELOW LAND SURFACE DATUM APR 13, 1977.

LOWEST WATER LEVEL 148.05 FEET BELOW LAND SURFACE DATUM SEP 13, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 147.99 ; DEC 14, 1983 147.99 ; MAR 06, 1984 145.41 ; JUN 04, 1984 145.36 ;

SEP 10, 1984 147.30 .

GRAHAM COUNTY -- CONTINUED

WELL 06S 25W 28CBC 01 SITE NUMBER 392959100073201

6-25W-28CBC. HENRY KLEIN. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DIAMETER 12 INCHES, DEPTH 180 FEET. MEASURING POINT, LOWER LIP OF PIPE IN PUMP BASE, 0.75 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2540.00 FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 96.35 FEET BELOW LAND SURFACE DATUM SEP 04, 1962.

LOWEST WATER LEVEL 117.05 FEET BELOW LAND SURFACE DATUM DEC 27, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 109.14 ; MAR 06, 1984 107.67 ; JUN 04, 1984 105.45 ; SEP 10, 1984 110.34 .

GRANT COUNTY

WELL 27S 35W 17ADD 01 SITE NUMBER 374203101095101

27-35W-17ADD. H. E. MEYER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 410 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP HOLE SOUTHEAST SIDE OF PUMP BASE, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3066. FEET

RECORDS AVAILABLE 1954, 1958 - 1960, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 179.25 FEET BELOW LAND SURFACE DATUM NOV 10, 1958.

LOWEST WATER LEVEL 238.41 FEET BELOW LAND SURFACE DATUM JUL 25, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 237.37 ; FEB 13, 1984 233.73 ; APR 18, 1984 234.34 ; JUL 25, 1984 238.41 .

WELL 27S 37W 04ABB 01 SITE NUMBER 374406101221501

27-37W-4ABB. C. L. JURY, JR. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 370 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE SOUTHWEST SIDE OF PUMP BASE, 2.5 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 3080. FEET

RECORDS AVAILABLE 1958 - 1961, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 74.16 FEET BELOW LAND SURFACE DATUM MAR 28, 1960.

LOWEST WATER LEVEL 167.00 FEET BELOW LAND SURFACE DATUM OCT 13, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 167.00 ; FEB 13, 1984 164.85 ; APR 18, 1984 162.61 .

WELL 27S 39W 15BBB 01 SITE NUMBER 374221101281501

27-39W-15BBB. MRS. CHARLES ANDES. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE, DAKOTA SANDSTONE, AND CHEYENNE SANDSTONE. DEPTH 479 FEET, DIAMETER 16 INCHES. MEASURING POINT, OUTSIDE EDGE OF BOLT HOLE AT BASE, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3149. FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 97.15 FEET BELOW LAND SURFACE DATUM JAN 15, 1958.

LOWEST WATER LEVEL 181.12 FEET BELOW LAND SURFACE DATUM JUL 09, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 174.78 ; FEB 13, 1984 176.92 ; APR 18, 1984 177.45 ; JUL 09, 1984 181.12 ;

AUG 09, 1984 181.12 .

## GRANT COUNTY -- CONTINUED

### WELL 27S 38W 23CB 01 SITE NUMBER 374100101270501

27-38W-23CB. L. F. HOHNER. DRILLED, UNUSED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 235 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CASING, EAST, 0.8 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3105. FEET

RECORDS AVAILABLE 1943, 1955, 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 41.25 FEET BELOW LAND SURFACE DATUM MAR 09, 1943.

LOWEST WATER LEVEL 168.61 FEET BELOW LAND SURFACE DATUM JUL 09, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 157.98 ; FEB 13, 1984 154.02 ; APR 18, 1984 164.11 ; JUL 09, 1984 168.61 ;

AUG 09, 1984 168.61 .

### WELL 27S 38W 32BCC 01 SITE NUMBER 373924101302501

27-38W-32BCC. G. M. COFFEY. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 258 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CASING, SOUTH, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3131. FEET

RECORDS AVAILABLE 1940, 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 49.66 FEET BELOW LAND SURFACE DATUM NOV 29, 1940.

LOWEST WATER LEVEL 164.15 FEET BELOW LAND SURFACE DATUM FEB 01, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 01, 1983 | 158.80 | FEB 01, 1984 | 156.96 | MAY 01, 1984 | 157.70 | AUG 09, 1984 | 161.02 |
| 13 | 159.16 | 13 | 159.89 | JUN 01 | 157.83 | SEP 01 | 159.43 |
| NOV 01 | 155.26 | MAR 01 | 157.20 | JUL 01 | 158.11 | | |
| DEC 01 | 155.20 | APR 01 | 157.50 | 09 | 161.02 | | |
| JAN 01, 1984 | 157.26 | 18 | 159.65 | AUG 01 | 158.29 | | |

### WELL 28S 36W 21CDD 01 SITE NUMBER 373530101154601

28-36W-21CDD. J. S. CONGDON. DRILLED, WATER-TABLE DOMESTIC WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 325 FEET, DIAMETER 6 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PLATE, 0.7 FOOT ABOVE LSD. MEASURING POINT CHANGED TO 5.95 FEET BELOW LSD, JUNE 17, 1975.

ALTITUDE OF LAND SURFACE 3066. FEET

RECORDS AVAILABLE 1966 - 1968, 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 193.85 FEET BELOW LAND SURFACE DATUM FEB 18, 1966.

LOWEST WATER LEVEL 287.48 FEET BELOW LAND SURFACE DATUM OCT 13, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 287.48 ; FEB 13, 1984 276.05 .

### WELL 28S 38W 07BBB 01 SITE NUMBER 373758101313001

28-38W-7BBB. DELIA PINEGAR. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLIOCENE AND PLEISTOCENE AGE. DEPTH 284 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER EDGE OF CUTOUT NORTH SIDE OF PUMP BASE, 0.7 FOOT ABOVE LSD. MP CHANGED TO TOP OF CASING, 1.0 FOOT ABOVE LSD, JANUARY 1980. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3134. FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 82.36 FEET BELOW LAND SURFACE DATUM MAR 21, 1960.

LOWEST WATER LEVEL 228.06 FEET BELOW LAND SURFACE DATUM OCT 13, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 217.55 ; FEB 13, 1984 218.25 ; APR 18, 1984 227.00 ; JUL 09, 1984 224.61

AUG 09, 1984 224.61 .

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GRANT COUNTY -- CONTINUED

WELL 28S 38W 12DDD 01 SITE NUMBER 373716101250601

28-38W-12DDD. USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 367 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.7 FEET ABOVE LSD. MP CHANGED TO 1.5 FEET ABOVE LSD, SEPTEMBER 1964. MP CHANGED TO 0.97 FOOT BELOW LSD SEPTEMBER 1974. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3080. FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 72.06 FEET BELOW LAND SURFACE DATUM MAR 02, 1966.

LOWEST WATER LEVEL 209.50 FEET BELOW LAND SURFACE DATUM SEP 09, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 191.54 ; FEB 13, 1984 172.41 ; APR 18, 1984 179.61 ; JUL 09, 1984 187.34 ;

AUG 09, 1984 187.34 .

WELL 28S 38W 17AAA 01 SITE NUMBER 373707101292701

28-38W-17AAA. USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 390 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 4.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3112. FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 100.41 FEET BELOW LAND SURFACE DATUM FEB 21, 1966.

LOWEST WATER LEVEL 217.44 FEET BELOW LAND SURFACE DATUM JUL 08, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 207.47 ; FEB 13, 1984 200.15 ; APR 18, 1984 204.13 ; JUL 09, 1984 204.68 ;

AUG 09, 1984 204.68 .

WELL 29S 35W 07CBD 01 SITE NUMBER 373214101114301

29-35W-7CBD. OWNER UNKNOWN. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE AND OGALLALA FORMATION. DEPTH NOT REPORTED. MEASURING POINT, HOLE INSIDE PUMP BASE, NORTHEAST, 0.5 FOOT ABOVE LSD. MP CHANGED TO 1/4-INCH PLUG IN PLATE, 0.3 FOOT ABOVE LSD, JANUARY 16, 1980.

ALTITUDE OF LAND SURFACE 3036. FEET

RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 255.85 FEET BELOW LAND SURFACE DATUM FEB 02, 1979.

LOWEST WATER LEVEL 291.24 FEET BELOW LAND SURFACE DATUM APR 18, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 287.99 S; JAN 11, 1984 275.40 ; APR 18, 1984 291.24 ; JUL 09, 1984 281.70 ;

AUG 09, 1984 281.70 .

WELL 29S 38W 35CCD 01 SITE NUMBER 372832101265901

29-38W-35CCD. RAY R. KEPLEY. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 271 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTH SIDE OF PUMP, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3124. FEET

RECORDS AVAILABLE 1958 - 1960, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 100.24 FEET BELOW LAND SURFACE DATUM APR 01, 1960.

LOWEST WATER LEVEL 177.08 FEET BELOW LAND SURFACE DATUM JUL 09, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 174.73 ; JAN 12, 1984 172.12 ; APR 18, 1984 174.45 ; JUL 09, 1984 177.08 ;

AUG 09, 1984 177.08 .

GRANT COUNTY -- CONTINUED

WELL 30S 36W 01BBB 01 SITE NUMBER 372826101125501

30-36W-1BBB. USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 400 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD. PRIOR TO JANUARY 1974, MP WAS 3.6 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2973. FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 120.64 FEET BELOW LAND SURFACE DATUM MAR 02, 1966.

LOWEST WATER LEVEL 220.66 FEET BELOW LAND SURFACE DATUM JUL 08, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 213.81 ; JAN 11, 1984 200.90 ; APR 18, 1984 215.71 ; JUL 09, 1984 216.58 ;

AUG 09, 1984 216.58 .

WELL 30S 36W 32BBC 01 SITE NUMBER 372357101171501

30-36W-32BBC. MRS. FANNIE BROLLIER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 370 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 1.3 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3064. FEET

RECORDS AVAILABLE 1960, 1963 - 1966, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 112.89 FEET BELOW LAND SURFACE DATUM MAR 21, 1960.

LOWEST WATER LEVEL 178.02 FEET BELOW LAND SURFACE DATUM OCT 13, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 11, 1984 166.25 ; APR 18, 1984 166.31 .

WELL 30S 37W 03DBA 01 SITE NUMBER 372759101210001

30-37W-3DBA. EARL STEEN. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 558 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3108. FEET

RECORDS AVAILABLE 1959 - 1960, 1962 - 1965, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 149.14 FEET BELOW LAND SURFACE DATUM MAR 31, 1960.

LOWEST WATER LEVEL 278.53 FEET BELOW LAND SURFACE DATUM OCT 13, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 278.53 ; JAN 11, 1984 276.90 ; APR 18, 1984 278.06 .

WELL 30S 37W 20CBC 01 SITE NUMBER 372515101235101

30-37W-20CBC. J. H. LEWIS. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 335 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTH SIDE OF PUMP BASE, 0.65 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3125. FEET

RECORDS AVAILABLE 1941 - 1942, 1952 TO CURRENT YEAR.

HIGHEST WATER LEVEL 114.29 FEET BELOW LAND SURFACE DATUM APR 16, 1942.

LOWEST WATER LEVEL 209.88 FEET BELOW LAND SURFACE DATUM OCT 13, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 220.36 S; JAN 12, 1984 208.18 ; APR 18, 1984 207.41 ; JUL 09, 1984 208.61 ;

AUG 09, 1984 208.61 .

## GRAY COUNTY

WELL 24S 28W 36ACA 01 SITE NUMBER 375520100202701

24-28W-36ACA. ART SCHARTZ. DRILLED, ARTESIAN IRRIGATION WELL IN OGALLALA FORMATION. DIAMETER 16 INCHES, DEPTH 135 FEET. MEASURING POINT, PUMP BASE, 0.9 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2720. FEET

RECORDS AVAILABLE 1956, 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 82.24 FEET BELOW LAND SURFACE DATUM JAN 20, 1965.

LOWEST WATER LEVEL 97.57 FEET BELOW LAND SURFACE DATUM OCT 15, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 14, 1983 97.19 ; JAN 30, 1984 97.11 ; JUL 12, 1984 96.68 .

WELL 24S 30W 15CCC 01 SITE NUMBER 375732100363001

24-30W-15CCC. WALTER NICHOLSON. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 240 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP BASE, WEST, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2846. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 117.00 FEET BELOW LAND SURFACE DATUM JAN 10, 1966.

LOWEST WATER LEVEL 146.85 FEET BELOW LAND SURFACE DATUM JAN 18, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1984 135.28 ; APR 12, 1984 133.13 .

WELL 26S 29W 35CCC 01 SITE NUMBER 374417100280401

26-29W-35CCC. FLOYD FRACK. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 218 FEET. MEASURING POINT, HOLE IN SOUTH SIDE OF PUMP BASE, 0.1 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2742. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 65.80 FEET BELOW LAND SURFACE DATUM JAN 20, 1969.

LOWEST WATER LEVEL 98.68 FEET BELOW LAND SURFACE DATUM JUL 27, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1984 96.12 .

WELL 27S 27W 25CCD 01 SITE NUMBER 373947100134201

27-27W-25CCD. ARTHUR SLOCUM. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 200 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER EDGE OF HOLE ON SOUTHEAST SIDE OF PUMP, 0.7 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2732. FEET

RECORDS AVAILABLE 1937, 1940, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 163.85 FEET BELOW LAND SURFACE DATUM JAN 17, 1966.

LOWEST WATER LEVEL 189.16 FEET BELOW LAND SURFACE DATUM OCT 27, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 26, 1983 184.47 ; JAN 26, 1984 178.61 ; APR 12, 1984 178.91 .

WELL 27S 30W 23BB 01 SITE NUMBER 374126100343401

27-30W-23BB. HOSKINSON BROS. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 135 FEET, DIAMETER 16 INCHES. MEASURING POINT, CUT-OUT NORTH SIDE OF PUMP BASE, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2772. FEET

RECORDS AVAILABLE 1940, 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 62.50 FEET BELOW LAND SURFACE DATUM DEC 10, 1966.

LOWEST WATER LEVEL 105.79 FEET BELOW LAND SURFACE DATUM OCT 26, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 26, 1983 105.79 ; JAN 27, 1984 103.70 ; APR 12, 1984 103.34 .

## GRAY COUNTY -- CONTINUED

WELL 28S 30W 17BBA 01 SITE NUMBER 373709100374701

28-30W-17BBA. EARL A. NELSON. DRILLED, ARTESIAN IRRIGATION WELL IN THE OGALLALA FORMATION. DIAMETER 16 INCHES, DEPTH 300 FEET. MEASURING POINT, UPPER EDGE OF HOLE IN SOUTH SIDE OF PUMP, 0.8 FOOT ABOVE LSD. MP CHANGED TO 0.1 FOOT ABOVE LSD. JANUARY 1974. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2817. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 107.05 FEET BELOW LAND SURFACE DATUM JAN 06, 1959.

LOWEST WATER LEVEL 165.53 FEET BELOW LAND SURFACE DATUM OCT 27, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 27, 1984 157.40 ; APR 12, 1984 157.05 .

WELL 28S 30W 24BAB 01 SITE NUMBER 373614100331601

28-30W-24BAB. ALLEN ISAAC. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 242 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP EDGE OF HOLE IN SOUTH SIDE OF PUMP HEAD, 0.8 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2804. FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 115.37 FEET BELOW LAND SURFACE DATUM APR 02, 1962.

LOWEST WATER LEVEL 168.28 FEET BELOW LAND SURFACE DATUM OCT 20, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 26, 1983 164.93 ; JAN 27, 1984 160.64 ; APR 12, 1984 160.54 .

WELL 29S 28W 28CDC 01 SITE NUMBER 372922100232701

29-28W-28CDC. DELBERT MCCUNE. DRILLED, ARTESIAN IRRIGATION WELL IN OGALLALA FORMATION. DIAMETER 16 INCHES, DEPTH 204 FEET. MEASURING POINT, HOLE IN SOUTHWEST SIDE OF PUMP BASE, 1.00 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2688. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 87.60 FEET BELOW LAND SURFACE DATUM APR 18, 1960.

LOWEST WATER LEVEL 121.94 FEET BELOW LAND SURFACE DATUM APR 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

APR 12, 1984 121.94 .

WELL 29S 29W 10ABB 01 SITE NUMBER 373247100283801

29-29W-10ABB. IVAN JANTZ. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 170 FEET. MEASURING POINT, HORIZONTAL HOLE SOUTH SIDE OF PUMP BASE, AT LAND SURFACE. REPLACES 29-29W-10BBB.

RECORDS AVAILABLE 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 116.16 FEET BELOW LAND SURFACE DATUM OCT 27, 1981.

LOWEST WATER LEVEL 123.21 FEET BELOW LAND SURFACE DATUM OCT 26, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 26, 1983 123.21 ; APR 12, 1984 119.96 .

## GREELEY COUNTY

WELL 16S 39W 02BDC 01 SITE NUMBER 384139101354901

16-39W-28DC. F. J. HERL + SONS. DRILLED, WATER-TABLE IRRGATION WELL IN OGALLALA FORMATION. DEPTH 190 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE NORTH SIDE OF PUMP BASE, 1.5 FEET ABOVE LSD. MEASURED BY KSBA. REPLACEMENT WELL FOR 16-39W-30AA.

ALTITUDE OF LAND SURFACE 3520. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 100.98 FEET BELOW LAND SURFACE DATUM JAN 24, 1970.

LOWEST WATER LEVEL 138.74 FEET BELOW LAND SURFACE DATUM OCT 06, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 138.74 ; JAN 13, 1984 135.95 ; APR 19, 1984 135.54 .

GREELEY COUNTY -- CONTINUED

WELL 16S 39W 22DCB 01 SITE NUMBER 383841101363801

16-39W-22DCB. ANDREW BERNING. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMAITON. DEPTH 163 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE NORTHEAST SIDE OF PUMP BASE, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3529. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 87.22 FEET BELOW LAND SURFACE DATUM JAN 28, 1965.

LOWEST WATER LEVEL 135.26 FEET BELOW LAND SURFACE DATUM OCT 06, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 135.26 ; JAN 10, 1984 129.80 ; APR 19, 1984 129.91 ; JUL 26, 1984 130.13 .

WELL 16S 40W 15DBA 01 SITE NUMBER 383947101463701

16-40W-15DBA. GORDON CAVENEE. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 210 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3691. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 126.70 FEET BELOW LAND SURFACE DATUM JAN 13, 1966.

LOWEST WATER LEVEL 164.34 FEET BELOW LAND SURFACE DATUM JAN 18, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 163.13 ; APR 19, 1984 163.11 ; JUL 26, 1984 163.31 .

WELL 16S 41W 20BAD 01 SITE NUMBER 383915101522901

16-41W-20BAD. JACK BARR. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 250 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE EAST SIDE OF PUMP, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3739. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 131.34 FEET BELOW LAND SURFACE DATUM MAR 30, 1966.

LOWEST WATER LEVEL 168.12 FEET BELOW LAND SURFACE DATUM JAN 10, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 165.57 ; JAN 10, 1984 168.12 ; APR 19, 1984 166.29 .

WELL 17S 39W 028AA 01 SITE NUMBER 383643101354101

17-39W-28AA. NORMAN H. WEDALT. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH NOT REPORTED. MEASURING POINT, HOLE IN PUMP BASE, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA. REPLACES WELL 16-39W-33CCC.

ALTITUDE OF LAND SURFACE 3511. FEET

RECORDS AVAILABLE 1972, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 101.76 FEET BELOW LAND SURFACE DATUM FEB 01, 1972.

LOWEST WATER LEVEL 197.4 FEET BELOW LAND SURFACE DATUM JAN 26, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 121.01 ; JAN 10, 1984 116.45 ; APR 19, 1984 117.64 .

WELL 17S 39W 22ABB 01 SITE NUMBER 383405101363901

17-39W-22ABB. F. H. KLEYMANN + SONS. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 196 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE EAST SIDE OF PUMP BASE, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3527. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 119.50 FEET BELOW LAND SURFACE DATUM JAN 28, 1965.

LOWEST WATER LEVEL 138.68 FEET BELOW LAND SURFACE DATUM SEP 17, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 137.41 ; JAN 10, 1984 130.84 ; APR 19, 1984 130.52 .

GREELEY COUNTY -- CONTINUED

WELL 17S 40W 15CCB 01 SITE NUMBER 383418101435701

17-40W-15CCB. J. E. SMITH. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 200 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE EAST SIDE OF PUMP BASE, 0.4 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3607. FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 125.16 FEET BELOW LAND SURFACE DATUM NOV 05, 1962.

LOWEST WATER LEVEL 146.98 FEET BELOW LAND SURFACE DATUM OCT 06, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 143.66 ; JAN 10, 1984 135.74 ; APR 19, 1984 137.76 .

WELL 17S 40W 31BBA 01 SITE NUMBER 363220101470801

17-40W-31BBA. SMITH RANCH. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 250 FEET. MEASURING POINT, HOLE WEST SIDE OF PUMP BASE, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3663. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 164.78 FEET BELOW LAND SURFACE DATUM JAN 17, 1983.

LOWEST WATER LEVEL 191.60 FEET BELOW LAND SURFACE DATUM SEP 16, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 176.76 ; JAN 10, 1984 167.72 ; APR 19, 1984 171.00 .

WELL 17S 42W 27CBB 01 SITE NUMBER 383247101572001

17-42W-27CBB. CECIL DUNHAM. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 50 FEET, DIAMETER 8 INCHES. MEASURING POINT, EDGE HOLE EAST SIDE OF PUMP, 1.0 FOOT ABOVE LSD. MP CHANGED TO 1.1 FOOT ABOVE LSD, MARCH 1977. REPLACEMENT WELL FOR 17-41W-30DDD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3768. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 34.47 FEET BELOW LAND SURFACE DATUM JAN 24, 1974.

LOWEST WATER LEVEL 46.28 FEET BELOW LAND SURFACE DATUM FEB 01, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 39.73 ; JAN 10, 1984 38.06 ; APR 19, 1984 37.21 ; JUL 26, 1984 37.08 .

HAMILTON COUNTY

WELL 24S 40W 17BBB 01 SITE NUMBER 375815101442401

24-40W-17BBB. J. H. SMITH. DRILLED, WATER-TABLE IRRIGATION WELL IN PLIO-PLEIST SERIES. DEPTH 59 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE INSIDE PUMP BASE, SOUTHWEST, 0.8 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3221. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.80 FEET BELOW LAND SURFACE DATUM JAN 31, 1984.

LOWEST WATER LEVEL 21.23 FEET BELOW LAND SURFACE DATUM SEP 14, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 31, 1983 19.84 ; JAN 31, 1984 14.80 ; APR 17, 1984 15.01 .

## HAMILTON COUNTY -- CONTINUED

### WELL 26S 42W 17CB 01 SITE NUMBER 374708101562401

26-42W-17CB. MARION WECKERLY. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS, OGALLALA FORMATION, AND UNDIFFERENTIATED MESOZOIC DEPOSITS. DEPTH 749 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, AT LAND SURFACE. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3458. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 100.00 FEET BELOW LAND SURFACE DATUM FEB 06, 1960.

LOWEST WATER LEVEL 167.02 FEET BELOW LAND SURFACE DATUM FEB 01, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 165.91 ; FEB 01, 1984 167.02 ; APR 17, 1984 161.13 .

### WELL 26S 42W 22CDB 01 SITE NUMBER 374606101540201

26-42W-22CDB. HAROLD PAYNE. DRILLED, ARTESIAN IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 265 FEET, DIAMETER 16 INCHES. MEASURING POINT, SOUTHEAST SIDE OF PUMP, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3412. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 87.42 FEET BELOW LAND SURFACE DATUM JAN 05, 1960.

LOWEST WATER LEVEL 198.16 FEET BELOW LAND SURFACE DATUM AUG 08, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 180.81 ; FEB 01, 1984 158.96 ; APR 17, 1984 159.51 ; AUG 08, 1984 198.16 .

## HARVEY COUNTY

### WELL 24S 02W 16BAA 01 SITE NUMBER 375810097324301

24-2W-16BAA. (886) F. H. HAIBER. DRILLED, UNUSED, WATER-TABLE WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 57 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 0.8 FOOT ABOVE LSD. MEASURED BY CITY OF WICHITA.

ALTITUDE OF LAND SURFACE 1402.23 FEET

RECORDS AVAILABLE 1939 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.34 FEET BELOW LAND SURFACE DATUM AUG 21, 1939.

LOWEST WATER LEVEL 32.11 FEET BELOW LAND SURFACE DATUM OCT 01, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 01, 1983 | 31.38 | JAN 01, 1984 | 29.56 | APR 01, 1984 | 29.23 | JUL 01, 1984 | 28.06 |
| 19 | 29.40 | 20 | 29.07 | 20 | 27.14 | 19 | 29.78 |
| NOV 21 | 29.36 | FEB 21 | 28.41 | MAY 21 | 26.88 | AUG 20 | 31.99 |
| DEC 20 | 28.12 | MAR 20 | 29.23 | JUN 20 | 28.06 | SEP 20 | 31.31 |

## HASKELL COUNTY

### WELL 27S 33W 29DAA 01 SITE NUMBER 374013100564001

27-33W-29DAA. W. T. KELLS. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 452 FEET, DIAMETER 16 INCHES. MEASURING POINT, SLOPING PIPE WEST SIDE, 1.3 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2995. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 186.30 FEET BELOW LAND SURFACE DATUM JAN 20, 1966.

LOWEST WATER LEVEL 263.15 FEET BELOW LAND SURFACE DATUM JUL 15, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 07, 1984 256.94 ; APR 18, 1984 257.73 .

HASKELL COUNTY -- CONTINUED

WELL 27S 34W 16DDD 01 SITE NUMBER 374136101020901

27-34W-16DDD. WALTER KUHN RANCH. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH NOT REPORTED. MEASURING POINT, SLOPING PIPE, NORTH, AT LAND SURFACE. REPLACEMENT WELL FOR 27-34W-16DDD3, APRIL 1982.

RECORDS AVAILABLE 1982 TO CURRENT YEAR.

HIGHEST WATER LEVEL 175.10 FEET BELOW LAND SURFACE DATUM JUL 15, 1982.

LOWEST WATER LEVEL 198.41 FEET BELOW LAND SURFACE DATUM APR 07, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 183.44 ; JAN 04, 1984 181.22 ; APR 18, 1984 181.26 ; JUL 25, 1984 183.63 .

WELL 28S 32W 18BBB 01 SITE NUMBER 373710100521001

28-32W-18BBB. EARL MEAIRS. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 438 FEET, DIAMETER 18 INCHES. MEASURING POINT, TOP OF PIPE, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2951. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 203.3 FEET BELOW LAND SURFACE DATUM OCT 04, 1966.

LOWEST WATER LEVEL 298.13 FEET BELOW LAND SURFACE DATUM APR 18, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 07, 1984 296.57 ; APR 18, 1984 298.13 .

WELL 28S 32W 24BCC 01 SITE NUMBER 373556100464201

28-32W-24BCC. ALTA M. WEIDNER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 250 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE INSIDE PUMP BASE, EAST, 0.1 FOOT ABOVE LSD. MP CHANGED TO HOLE EAST SIDE OF PUMP BASE, 1.0 FOOT ABOVE LSD, JANUARY 1976. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2910. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 172.30 FEET BELOW LAND SURFACE DATUM JUL 07, 1965.

LOWEST WATER LEVEL 224.71 FEET BELOW LAND SURFACE DATUM JUL 25, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 06, 1984 221.12 ; APR 18, 1984 223.62 ; JUL 25, 1984 224.71 .

WELL 28S 33W 21BCB 01 SITE NUMBER 373604100563201

28-33W-21BCB. FRANK STOOPS. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH NOT REPORTED, DIAMETER 16 INCHES. MEASURING POINT, INSIDE PUMP BASE, SOUTH, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2973. FEET

RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 301.53 FEET BELOW LAND SURFACE DATUM MAY 08, 1980.

LOWEST WATER LEVEL 331.76 FEET BELOW LAND SURFACE DATUM APR 07, 1982.

WATER LEVELS WERE NOT MEASURED IN THIS WELL BETWEEN 10/01/1983 AND 09/30/1984

WELL 28S 34W 15DAB 01 SITE NUMBER 373642101011201

28-34W-15DAB. R. & A. STONESTREET. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 408 FEET, DIAMETER 16 INCHES. MEASURING POINT, SLOPING PIPE IN SOUTH SIDE OF PUMP, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3020. FEET

RECORDS AVAILABLE 1966, 1970 - 1974, 1976 - 1979, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 263.0 FEET BELOW LAND SURFACE DATUM JUN 06, 1966.

LOWEST WATER LEVEL 359.63 FEET BELOW LAND SURFACE DATUM JUL 25, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 345.63 R; FEB 06, 1984 351.32 ; APR 18, 1984 357.06 ; JUL 25, 1984 359.63 .

HASKELL COUNTY -- CONTINUED

WELL 29S 32W 26CBB C2 SITE NUMBER 372944100474902

29-32W-26CBB2. KELLY MCCLURE. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 384 FEET, DIAMETER 16 INCHES. MEASURING POINT, 0.7 FOOT ABOVE LSD. MEASURED BY KSBA. REPLACEMENT WELL FOR 29-32W-26CBB.

ALTITUDE OF LAND SURFACE 2895. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 199.16 FEET BELOW LAND SURFACE DATUM JAN 06, 1961.

LOWEST WATER LEVEL 255.48 FEET BELOW LAND SURFACE DATUM JAN 19, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 26, 1983 250.98 ; JAN 12, 1984 255.24 ; APR 12, 1984 251.21 .

WELL 29S 33W 28BCB 01 SITE NUMBER 372958100563301

29-33W-28BCB. S. + G. HALL. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH NOT REPORTED. MEASURING POINT, LOWER LIP OF SLANT PIPE, NORTH SIDE OF CONCRETE, 0.3 FOOT ABOVE LSD. REPLACES WELL 29-33W-15BBA.

ALTITUDE OF LAND SURFACE 2963. FEET

RECORDS AVAILABLE 1970, 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 237.03 FEET BELOW LAND SURFACE DATUM JAN 21, 1970.

LOWEST WATER LEVEL 300.36 FEET BELOW LAND SURFACE DATUM APR 18, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 12, 1984 299.31 ; APR 18, 1984 300.36 .

WELL 30S 32W 11BBB 01 SITE NUMBER 372733100474901

30-32W-11BBB. VIRGIL WATSON. DRILLED, WATER-TABLE IRRIGATTON WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 412 FEET, DIAMETER 16 INCHES. MEASURING POINT, EDGE OF SLOPING PIPE, EASE OF PUMP BASE, 0.7 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2855. FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 195.39 FEET BELOW LAND SURFACE DATUM APR 02, 1962.

LOWEST WATER LEVEL 258.12 FEET BELOW LAND SURFACE DATUM JAN 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 12, 1984 258.12 .

WELL 30S 32W 31BAB 01 SITE NUMBER 372405100515601

30-32W-31BAB. LEMON + MILLER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 380 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER LIP OF SLOPING PIPE, SOUTH SIDE OF PUMP, 0.6 FOOT ABOVE LSD.

ALTITUDZ OF LAND SURFACE 2906. FEET

RECORDS AVAILABLE 1958 - 1959, 1964 - 1966, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 195.38 FEET BELOW LAND SURFACE DATUM FEB 24, 1959.

LOWEST WATER LEVEL 273.21 FEET BELOW LAND SURFACE DATUM APR 28, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 26, 1983 273.06 ; JAN 12, 1984 258.66 ; APR 12, 1984 264.80 .

WELL 30S 33W 30CBD 01 SITE NUMBER 372425100583501

30-33W-30CBD. EMIL SCHNELLBACKER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 415 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2963. FEET

RECORDS AVAILABLE 1965 - 1966, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 219.78 FEET BELOW LAND SURFACE DATUM JAN 20, 1966.

LOWEST WATER LEVEL 259.01 FEET BELOW LAND SURFACE DATUM OCT 13, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 13, 1983 258.61 ; JAN 11, 1984 253.87 ; APR 18, 1984 251.81 .

## HASKELL COUNTY -- CONTINUED

### WELL 30S 34W 05BBB 01 SITE NUMBER 372825101041201

30-34W-5BBB. ROONEY + ROONEY. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 410 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP EAST EDGE OF SLOPING PIPE, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3006. FEET

RECORDS AVAILABLE 1957 - 1958, 1960, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 190.00 FEET BELOW LAND SURFACE DATUM FEB 15, 1957.

LOWEST WATER LEVEL 321.36 FEET BELOW LAND SURFACE DATUM APR 18, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 11, 1984 320.13 ; APR 18, 1984 321.36 .

### WELL 30S 34W 30ADD 02 SITE NUMBER 372436101042002

30-34W-30ADD2. OWNER UNKNOWN. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH NOT REPORTED, DIAMETER 8 INCHES. MEASURING POINT, TOP OF CASING, 1.8 FEET ABOVE LSD. REPLACEMENT WELL FOR 30-34W-30ADD.

ALTITUDE OF LAND SURFACE 2843. FEET

RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 82.71 FEET BELOW LAND SURFACE DATUM APR 25, 1978.

LOWEST WATER LEVEL 93.83 FEET BELOW LAND SURFACE DATUM JAN 20, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 11, 1984 92.55 ; APR 18, 1984 93.17 ; AUG 09, 1984 91.73 .

## HODGEMAN COUNTY

### WELL 21S 22W 12BCB 01 SITE NUMBER 381430099414001

21-22W-12BCB. (3A) HAROLD MCFADDEN. BORED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DIAMETER 16 INCHES, DEPTH 72 FEET. MEASURING POINT, HOLE ON INSIDE OF NORTHWEST CORNER PUMP BASE, 1.74 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2156.6 FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 28.10 FEET BELOW LAND SURFACE DATUM APR 17, 1962.

LOWEST WATER LEVEL 56.39 FEET BELOW LAND SURFACE DATUM MAR 08, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 22, 1983 50.58 ; MAR 08, 1984 56.39 ; JUN 07, 1984 48.55 .

### WELL 22S 22W 13CCC 01 SITE NUMBER 380752099416101

22-22W-13CCC. WILLIAM MACEY. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 49 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.4 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2152. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 23.70 FEET BELOW LAND SURFACE DATUM DEC 20, 1965.

LOWEST WATER LEVEL 36.27 FEET BELOW LAND SURFACE DATUM JUN 15, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 22, 1983 31.10 ; MAR 08, 1984 29.92 ; JUN 07, 1984 28.34 ; SEP 17, 1984 35.60 .

### WELL 22S 24W 16ADB 02 SITE NUMBER 380827099572502

22-24W-16ADB2. WAYNE SHRIWISE. DRILLED, UNUSED, ARTESIAN WELL IN THE DAKOTA FORMATION. DEPTH 565 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF CASING, AT LAND SURFACE. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2465. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 239.23 FEET BELOW LAND SURFACE DATUM MAR 25, 1982.

LOWEST WATER LEVEL 341.88 FEET BELOW LAND SURFACE DATUM SEP 28, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 07, 1984 264.18 ; JUN 12, 1984 257.38 ; SEP 17, 1984 279.32 .

HODGEMAN COUNTY -- CONTINUED

WELL 22S 24W 25DDC 01 SITE NUMBER 380609099540701

22-24W-25DDC. DARRELL CRAGHEAD. DRILLED, ARTESIAN STOCK WELL IN DAKOTA FORMATION. DEPTH 330 FEET, DIAMETER 6 INCHES. MEASURING POINT, HOLE IN PLATE ON TOP OF CASING, 5.0 FEET BELOW LSD.

ALTITUDE OF LAND SURFACE 2332. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 128.27 FEET BELOW LAND SURFACE DATUM MAR 21, 1973.

LOWEST WATER LEVEL 226.35 FEET BELOW LAND SURFACE DATUM AUG 27, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 22, 1983 154.41 ; MAR 07, 1984 142.62 ; JUN 12, 1984 133.84 ; SEP 17, 1984 180.41 .

WELL 23S 22W 07DAA 01 SITE NUMBER 380351099461501

23-22W-7DAA. FRED KORF. DRILLED, ARTESIAN OBSERVATION WELL IN DAKOTA FORMATION. DEPTH 482 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF CASING, 1.3 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2239. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 74.43 FEET BELOW LAND SURFACE DATUM JUN 12, 1984.

LOWEST WATER LEVEL 127.07 FEET BELOW LAND SURFACE DATUM SEP 23, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 22, 1983 77.39 ; MAR 07, 1984 75.51 ; JUN 12, 1984 74.43 ; SEP 17, 1984 82.09 .

WELL 23S 23W 04AAD 01 SITE NUMBER 380504099504001

23-23W-4AAD. N. H. BRISTOW. DRILLED, ARTESIAN IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 282 FEET, DIAMETER 16 INCHES. MEASURING POINT, 3/4-INCH PLUG, NORTHEAST CORNER OF BASE, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2235. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 28.46 FEET BELOW LAND SURFACE DATUM MAR 21, 1973.

LOWEST WATER LEVEL 110.85 FEET BELOW LAND SURFACE DATUM SEP 23, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 22, 1983 39.95 ; MAR 07, 1984 32.88 ; JUN 12, 1984 31.04 ; SEP 17, 1984 50.08 .

WELL 23S 23W 04DCA 01 SITE NUMBER 380432099505701

23-23W-4DCA. DARRELL W. HOAGLAND. DRILLED, ARTESIAN IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 264 FEET, DIAMETER 16 INCHES. MEASURING POINT, 3/4-INCH PLUG NORTHEAST OF BASE, 0.8 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2236. FEET

RECORDS AVAILABLE 1970 - 1977, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 26.02 FEET BELOW LAND SURFACE DATUM MAR 21, 1973.

LOWEST WATER LEVEL 102.10 FEET BELOW LAND SURFACE DATUM OCT 28, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 22, 1983 42.73 .

WELL 23S 24W 11DAA 01 SITE NUMBER 380352099550501

23-24W-11DAA. TRACY JONES. DRILLED, ARTESIAN STOCK WELL IN DAKOTA FORMATION. DEPTH 300 FEET, DIAMETER 6 INCHES. MEASURING POINT, HOLE IN PLATE, TOP OF CASING, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2335. FEET

RECORDS AVAILABLE 1970 - 1971, 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 125.87 FEET BELOW LAND SURFACE DATUM MAR 21, 1973.

LOWEST WATER LEVEL 205.23 FEET BELOW LAND SURFACE DATUM SEP 25, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 22, 1983 155.00 ; MAR 07, 1984 140.25 ; JUN 12, 1984 141.68 ; SEP 17, 1984 188.67 .

## HODGEMAN COUNTY -- CONTINUED

### WELL 23S 25W 22DBB 01 SITE NUMBER 380207100031301

23-25W-22DBB. ROY CARDER. DRILLED, WATER-TABLE IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 575 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, SOUTH, 0.8 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2522. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 233.2 FEET BELOW LAND SURFACE DATUM MAY 24, 1973.

LOWEST WATER LEVEL 297.98 FEET BELOW LAND SURFACE DATUM SEP 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 22, 1983 267.29 ; MAR 07, 1984 259.03 ; JUN 12, 1984 252.37 ; SEP 17, 1984 297.98 .

### WELL 23S 26W 07CCC 01 SITE NUMBER 380335100132701

23-26W-7CCC. HARRY CONDON. DRILLED, WATER-TABLE IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 500 FEET. MEASURING POINT, PLUG SOUTHWEST OF PUMP BASE, 0.7 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2612. FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 272.92 FEET BELOW LAND SURFACE DATUM APR 09, 1969.

LOWEST WATER LEVEL 348.02 FEET BELOW LAND SURFACE DATUM JUL 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 14, 1983 342.51 ; JAN 26, 1984 323.25 ; APR 06, 1984 339.11 ; JUL 12, 1984 348.02 .

### WELL 24S 23W 06AAB 01 SITE NUMBER 375958099530101

24-23W-6AAB. FRANK WOLF. DRILLED, ARTESIAN IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 517 FEET, DIAMETER 16 INCHES. MEASURING POINT, EDGE OF PIPE, SOUTH, 1.1 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2457. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 210.77 FEET BELOW LAND SURFACE DATUM JUN 15, 1983.

LOWEST WATER LEVEL 268.33 FEET BELOW LAND SURFACE DATUM SEP 28, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 22, 1983 215.09 ; MAR 07, 1984 211.40 ; JUN 12, 1984 240.99 ; SEP 17, 1984 261.07 .

### WELL 24S 26W 35CBC 01 SITE NUMBER 375502100090801

24-26W-35CBC. A. C. JAMES. DRILLED, WATER-TABLE STOCK WELL IN OGALLALA FORMATION. DEPTH 86 FEET, DIAMETER 5.5 INCHES. MEASURING POINT, TOP OF CASING, NORTH, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA. MP CHANGED TO 0.5 FOOT ABOVE LSD, APRIL 1984.

ALTITUDE OF LAND SURFACE 2609.3 FEET

RECORDS AVAILABLE 1954 TO CURRENT YEAR.

HIGHEST WATER LEVEL 61.19 FEET BELOW LAND SURFACE DATUM JUN 12, 1984.

LOWEST WATER LEVEL 67.30 FEET BELOW LAND SURFACE DATUM JAN 06, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 22, 1983 61.93 ; MAR 07, 1984 61.39 ; JUN 12, 1984 61.19 ; SEP 17, 1984 62.34 .

## JACKSON COUNTY

### WELL 06S 15E 27BAB 01 SITE NUMBER 393024095435701

6-15E-27BAB. JACKSON COUNTY RWD 3. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 123 FEET, DIAMETER 1.5 INCHES. MEASURING POINT, TOP OF CASING, 2.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1135. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 76.22 FEET BELOW LAND SURFACE DATUM MAR 15, 1974.

LOWEST WATER LEVEL 85.60 FEET BELOW LAND SURFACE DATUM SEP 08, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 84.60 ; MAR 07, 1984 85.40 .

## JEFFERSON COUNTY

### WELL 11S 16E 25CBA 01 SITE NUMBER 390347095352701

11-16E-25CBA. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 39.5 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 873. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.50 FEET BELOW LAND SURFACE DATUM DEC 26, 1973.

LOWEST WATER LEVEL 26.90 FEET BELOW LAND SURFACE DATUM DEC 09, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 24.80 ; MAR 07, 1984 24.35 ; JUN 05, 1984 20.60 ; SEP 14, 1984 23.65 .

### WELL 11S 17E 21ADA 01 SITE NUMBER 390453095311701

11-17E-21ADA. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN NEWMAN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 48 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 1.6 FEET ABOVE LSD. MEASURED BY KSBA. MP CHANGED TO TOP OF PIPE, 0.6 FOOT ABOVE LSD, SEPTEMBER 1983.

ALTITUDE OF LAND SURFACE 865.2 FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.88 FEET BELOW LAND SURFACE DATUM DEC 26, 1973.

LOWEST WATER LEVEL 23.62 FEET BELOW LAND SURFACE DATUM DEC 09, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 18.47 .

### WELL 11S 17E 27BBC 01 SITE NUMBER 390407095310901

11-17E-27BCC. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 42 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 860. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.15 FEET BELOW LAND SURFACE DATUM DEC 26, 1973.

LOWEST WATER LEVEL 20.40 FEET BELOW LAND SURFACE DATUM DEC 09, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 17.50 ; MAR 07, 1984 18.26 ; JUN 05, 1984 13.32 ; SEP 14, 1984 17.20 .

### WELL 11S 18E 08DAC 01 SITE NUMBER 390617095255301

11-18E-8DAC. KGS. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 49 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 852. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.60 FEET BELOW LAND SURFACE DATUM JUN 10, 1982.

LOWEST WATER LEVEL 19.20 FEET BELOW LAND SURFACE DATUM MAR 14, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 11.55 ; MAR 07, 1984 12.75 ; JUN 05, 1984 8.50 ; SEP 14, 1984 11.75 .

### WELL 11S 19E 27BCC 01 SITE NUMBER 390354095175201

11-19E-27BCC. BUCK CREEK SCHOOL. BORED, WATER-TABLE OBSERVATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 57 FEET, DIAMETER 2 TO 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 884. FEET

RECORDS AVAILABLE 1961 - 1965, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.55 FEET BELOW LAND SURFACE DATUM MAR 21, 1973.

LOWEST WATER LEVEL 29.61 FEET BELOW LAND SURFACE DATUM MAR 14, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 19.93 .

## JEFFERSON COUNTY -- CONTINUED

### WELL 11S 19E 29CCA 01 SITE NUMBER 390334095195801

11-19E-29CCA. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN NEWMAN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 71 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF CASING, 3.2 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 848. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.40 FEET BELOW LAND SURFACE DATUM MAR 21, 1973.

LOWEST WATER LEVEL 24.60 FEET BELOW LAND SURFACE DATUM JUN 17, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 21.12 ; MAR 07, 1984 21.50 ; JUN 05, 1984 16.90 ; SEP 14, 1984 19.55 .

## JOHNSON COUNTY

### WELL 11S 23E 33BDD 01 SITE NUMBER 390300094514301

11-23E-33BDD. USGS + KGS. BORED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 39 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.6 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 772.8 FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 20.17 FEET BELOW LAND SURFACE DATUM MAR 29, 1962.

LOWEST WATER LEVEL 32.97 FEET BELOW LAND SURFACE DATUM JUN 11, 1981.

WATER LEVELS WERE NOT MEASURED IN THIS WELL BETWEEN 10/01/1983 AND 09/30/1984

### WELL 12S 22E 21CCC 01 SITE NUMBER 385906094585101

12-22E-21CCC. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 41 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 3.13 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 786. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.27 FEET BELOW LAND SURFACE DATUM DEC 26, 1973.

LOWEST WATER LEVEL 18.31 FEET BELOW LAND SURFACE DATUM DEC 09, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 16.37 .

### WELL 12S 22E 25BCCBC1 SITE NUMBER 385841094553401

12-22E-25BCCB. USGS. BORED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 33 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.8 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 780.2 FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.69 FEET BELOW LAND SURFACE DATUM MAR 21, 1973.

LOWEST WATER LEVEL 29.05 FEET BELOW LAND SURFACE DATUM JUN 11, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 26.67 ; MAR 07, 1984 27.27 ; JUN 05, 1984 22.60 .

### WELL 12S 22E 29BBD 01 SITE NUMBER 385853094594901

12-22E-29BBD. KGS. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 46 FEET, DIAMETER 5.5 INCHES. MEASURING POINT, TOP OF RECORDER FLOOR, 2.5 FEET ABOVE LSD. RECORDER REMOVED AND MP CHANGED TO TOP OF CASING, NORTH, 2.4 FEET ABOVE LSD, JANUARY 1972. MP CHANGED TO 1.6 FEET ABOVE LSD, SEPTEMBER 1983.

ALTITUDE OF LAND SURFACE 791. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.32 FEET BELOW LAND SURFACE DATUM DEC 26, 1973.

LOWEST WATER LEVEL 21.67 FEET BELOW LAND SURFACE DATUM MAY 30, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 17.73 ; MAR 07, 1984 18.35 ; JUN 05, 1984 12.50 .

## KEARNY COUNTY

### WELL 23S 35W 12CCC 01 SITE NUMBER 380344101071301

23-35W-12CCC. E. S. WHITE. DRILLED, ARTESIAN, IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 378 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE EAST SIDE OF PUMP BASE, 0.1 FOOT ABOVE LSD. MEASURED BY USBR + KSBA.

ALTITUDE OF LAND SURFACE 3009.0 FEET

RECORDS AVAILABLE 1958, 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 66.60 FEET BELOW LAND SURFACE DATUM MAY 12, 1958.

LOWEST WATER LEVEL 173.96 FEET BELOW LAND SURFACE DATUM JUL 08, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1984 161.52 ; APR 05, 1984 163.16 .

### WELL 23S 37W 04ABC 01 SITE NUMBER 380510101231101

23-37W-4ABC. WIATT FARMS, INC. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH NOT REPORTED. MEASURING POINT, REMOVE PLUG, NORTHWEST, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3281. FEET

RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 188.49 FEET BELOW LAND SURFACE DATUM APR 15, 1982.

LOWEST WATER LEVEL 250.35 FEET BELOW LAND SURFACE DATUM MAR 08, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1984 190.72 ; APR 05, 1984 191.36 .

### WELL 24S 35W 13CCC 02 SITE NUMBER 375738101071302

24-35W-13CCC2. ROBERT GLUNT. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM DEPOSITS. DEPTH 50 FEET, DIAMETER 5 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 1.35 FEET ABOVE LSD. PUMP REMOVED, MP CHANGED TO TOP OF CASING, 1.0 FOOT ABOVE LSD, SEPTEMBER 19, 1979.

ALTITUDE OF LAND SURFACE 2941. FEET

RECORDS AVAILABLE 1962 - 1968, 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.28 FEET BELOW LAND SURFACE DATUM JAN 26, 1966.

LOWEST WATER LEVEL 24.77 FEET BELOW LAND SURFACE DATUM OCT 21, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 20.31 ; JAN 31, 1984 19.20 ; APR 05, 1984 19.08 ; JUL 13, 1984 19.42 .

### WELL 25S 35W 02BAA 01 SITE NUMBER 375454101075401

25-35W-2BAA. DEAN GIGOT. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 300 FEET, DIAMETER 2 INCHES MEASURING POINT, TOP OF PIPE, 1.46 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2990. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 71.56 FEET BELOW LAND SURFACE DATUM APR 01, 1975.

LOWEST WATER LEVEL 96.53 FEET BELOW LAND SURFACE DATUM OCT 27, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 96.53 ; JAN 04, 1984 96.16 ; APR 05, 1984 94.96 ; JUL 13, 1984 95.13 .

### WELL 25S 35W 17AAA 01 SITE NUMBER 375307101103901

25-35W-17AAA. C. C. CATTLE CO., INC. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH NOT REPORTED. MEASURING POINT, HOLE IN NORTH SIDE OF PUMP BASE, AT LAND SURFACE.

ALTITUDE OF LAND SURFACE 2995. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 56.60 FEET BELOW LAND SURFACE DATUM APR 24, 1975.

LOWEST WATER LEVEL 94.55 FEET BELOW LAND SURFACE DATUM OCT 27, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 94.55 ; JAN 31, 1984 88.65 ; APR 05, 1984 90.77 .

## KEARNY COUNTY -- CONTINUED

### WELL 25S 35W 26BAB 01 SITE NUMBER 375124101080201

25-35W-26BAB. GEORGE H. TATE, III. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH NOT REPORTED. MEASURING POINT, HOLE IN NORTHEAST SIDE OF PUMP BASE, 0.6 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3005. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 74.31 FEET BELOW LAND SURFACE DATUM JUN 03, 1975.

LOWEST WATER LEVEL 115.53 FEET BELOW LAND SURFACE DATUM OCT 27, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 115.53 ; JAN 31, 1984 113.05 ; APR 05, 1984 111.13 .

### WELL 25S 36W 28BBD 01 SITE NUMBER 375115101165801

25-36W-28BBD. BARR + ROUNDS. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 362 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE WEST SIDE OF PUMP BASE, 0.1 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3050. FEET

RECORDS AVAILABLE 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 56.55 FEET BELOW LAND SURFACE DATUM APR 27, 1970.

LOWEST WATER LEVEL 96.53 FEET BELOW LAND SURFACE DATUM FEB 01, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1984 96.53 ; APR 05, 1984 91.58 .

### WELL 25S 37W 15ABA 02 SITE NUMBER 375305101215502

25-37W-15ABA2. CARL MARQUARDT. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 29 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 5.0 FEET ABOVE LSD. REPLACEMENT WELL FOR 25-37W-15ABA.

ALTITUDE OF LAND SURFACE 3050. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.61 FEET BELOW LAND SURFACE DATUM APR 05, 1984.

LOWEST WATER LEVEL 13.50 FEET BELOW LAND SURFACE DATUM JAN 14, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1984 9.16 ; APR 05, 1984 8.61 ; JUL 13, 1984 8.98 .

### WELL 26S 36W 04BDA 01 SITE NUMBER 374919101154601

26-36W-4BDA. KANSAS MASONIC HOME. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS. DEPTH 148 FEET, DIAMETER 8 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 3034. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 55.86 FEET BELOW LAND SURFACE DATUM MAY 02, 1966.

LOWEST WATER LEVEL 89.17 FEET BELOW LAND SURFACE DATUM JUL 13, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 27, 1983 86.14 ; JAN 31, 1984 88.30 ; APR 05, 1984 87.97 ; JUL 13, 1984 89.17 .

## KINGMAN COUNTY

### WELL 27S 10W 03DDD 01 SITE NUMBER 374309098232301

27-10W-3DDD. OWNER UNKNOWN. DRILLED, UNUSED, WATER-TABLE INDUSTRIAL WELL NEAR SAND PIT IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS. DEPTH 170 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, SOUTHEAST, 0.4 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1743. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 48.80 FEET BELOW LAND SURFACE DATUM JUL 01, 1980.

LOWEST WATER LEVEL 56.99 FEET BELOW LAND SURFACE DATUM SEP 19, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 51.74 ; JAN 16, 1984 51.55 ; MAR 13, 1984 51.54 ; JUN 11, 1984 51.13 ;
SEP 12, 1984 54.72 .

### WELL 28S 07W 29CDD 01 SITE NUMBER 373422098063301

28-7W-29CDD. L. + R. BROWN. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS. DEPTH 80 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE SOUTHEAST SIDE OF CASING, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1601. FEET

RECORDS AVAILABLE 1955 - 1956, 1964, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.35 FEET BELOW LAND SURFACE DATUM JUN 11, 1984.

LOWEST WATER LEVEL 30.2 FEET BELOW LAND SURFACE DATUM OCT 09, 1956.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 26.79 ; JAN 16, 1984 26.56 ; MAR 13, 1984 26.57 ; JUN 11, 1984 25.35 ;
SEP 12, 1984 26.24 .

### WELL 30S 05W 12CCA 01 SITE NUMBER 372659097491801

30-5W-12CCA. ROBERT LOWERY. DRILLED, WATER-TABLE IRRIGATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 63 FEET, DIAMETER 16 INCHES. MEASURING POINT, BASE OF PUMP, NORTH SIDE, 1.44 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1484. FEET

RECORDS AVAILABLE 1955, 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 19.54 FEET BELOW LAND SURFACE DATUM JUN 11, 1984.

LOWEST WATER LEVEL 27.36 FEET BELOW LAND SURFACE DATUM JUN 23, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 22.16 ; MAR 13, 1984 21.16 ; JUN 11, 1984 19.54 ; SEP 12, 1984 19.60 .

## KIOWA COUNTY

### WELL 27S 17W 21ADC 01 SITE NUMBER 374054099104501

27-17W-21ADC. (19) C. WILLIAMSON. DRILLED, WATER-TABLE IRRIGATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 85 FEET, DIAMETER 18 INCHES. MEASURING POINT, LOWER EDGE OF PUMP BASE, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2140. FEET

RECORDS AVAILABLE 1941, 1944 TO CURRENT YEAR.

HIGHEST WATER LEVEL 24.35 FEET BELOW LAND SURFACE DATUM DEC 12, 1973.

LOWEST WATER LEVEL 59.60 FEET BELOW LAND SURFACE DATUM JUN 23, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 19, 1983 34.06 ; JAN 17, 1984 33.84 ; MAR 09, 1984 34.04 ; JUN 06, 1984 35.19 ;
SEP 04, 1984 33.74 .

KIOWA COUNTY -- CONTINUED

WELL 27S 19W 13AAA 01 SITE NUMBER 374201099135401

27-19W-13AAA. KGS. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 66 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.3 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2152. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.62 FEET BELOW LAND SURFACE DATUM MAY 09, 1974.

LOWEST WATER LEVEL 24.21 FEET BELOW LAND SURFACE DATUM MAR 10, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 19, 1983 22.75 ; JAN 17, 1984 23.78 ; MAR 09, 1984 23.83 ; JUN 06, 1984 23.19 ;

SEP 04, 1984 23.98 .

WELL 27S 19W 18DDC 01 SITE NUMBER 374117099193001

27-18W-18DDC. GILBERT YOHN. DUG AND DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH 75 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CONCRETE CURB, SOUTH, 1.0 FOOT ABOVE LSD. NEW WELL BORED IN 1961 AT SAME LOCATION. NEW WELL IS AN UNUSED OBSERVATION WELL IN PLEISTOCENE DEPOSITS. DEPTH IS 40 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.9 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2192.00 FEET

RECORDS AVAILABLE 1940 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.30 FEET BELOW LAND SURFACE DATUM MAR 15, 1974.

LOWEST WATER LEVEL 26.62 FEET BELOW LAND SURFACE DATUM APR 23, 1941.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 19, 1983 18.79 ; JAN 16, 1984 17.63 ; MAR 09, 1984 19.95 ; JUN 06, 1984 19.06 ;

SEP 04, 1984 19.13 .

WELL 27S 20W 26ABD 01 SITE NUMBER 374001099282201

27-20W-26ABD. GLENN SOWERS. DRILLED, WATER-TABLE IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 95 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, NORTHWEST, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2274. FEET

RECORDS AVAILABLE 1969, 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 39.19 FEET BELOW LAND SURFACE DATUM MAR 24, 1975.

LOWEST WATER LEVEL 58.75 FEET BELOW LAND SURFACE DATUM SEP 04, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 19, 1983 44.17 ; JAN 16, 1984 45.00 ; MAR 09, 1984 46.21 ; SEP 04, 1984 58.75 .

WELL 28S 19W 10AAC 01 SITE NUMBER 373729099224501

28-19W-10AAC. PLYE-TAYLOR LAND CO. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN DAKOTA FORMATION. DEPTH 175 FEET, DIAMETER 4 INCHES. MEASURING POINT, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA. MP CHANGED TO 0.9 FOOT ABOVE LSD, SEPTEMBER 1980.

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 39.13 FEET BELOW LAND SURFACE DATUM JUL 05, 1977.

LOWEST WATER LEVEL 97.29 FEET BELOW LAND SURFACE DATUM SEP 15, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 19, 1983 93.78 ; JAN 16, 1984 92.25 ; MAR 09, 1984 92.14 ; JUN 06, 1984 93.32 ;

SEP 04, 1984 92.85 .

KIOWA COUNTY -- CONTINUED

WELL 29S 18W 02ACC 01 SITE NUMBER 373258099152101

29-15W-2ACC. LAURENCE SCHWARN. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN THE DAKOTA FORMATION. DEPTH 188 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF CASING, 1.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2251. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 142.99 FEET BELOW LAND SURFACE DATUM JUL 14, 1980.

LOWEST WATER LEVEL 145.44 FEET BELOW LAND SURFACE DATUM SEP 22, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 19, 1983 143.53 ; JAN 17, 1984 144.41 ; MAR 09, 1984 143.33 ; JUN 06, 1984 144.64 ;
SEP 04, 1984 144.42 .

LABETTE COUNTY

WELL 31S 21E 15CCC 02 SITE NUMBER 372026095060702

31-21E-15CCC2. KGS. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 17 FEET, DIAMETER 6.5 INCHES. MEASURING POINT, TOP OF CASING, SOUTH, AT LAND SURFACE. MP CHANGED TO 2.0 FEET ABOVE LSD, SEPTEMBER 1983. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 836.1 FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.42 FEET BELOW LAND SURFACE DATUM MAR 20, 1973.

LOWEST WATER LEVEL 17.55 FEET BELOW LAND SURFACE DATUM DEC 16, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 06, 1983 10.60 ; MAR 06, 1984 7.60 ; JUN 04, 1984 9.84 ; SEP 13, 1984 14.50 .

LANE COUNTY

WELL 17S 28W 26ABB 01 SITE NUMBER 383314100225601

17-28W-26ABB. BEN HARTMAN. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 140 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTH SIDE OF PUMP BASE, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2735. FEET

RECORDS AVAILABLE 1963 - 1967, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 85.63 FEET BELOW LAND SURFACE DATUM APR 07, 1964.

LOWEST WATER LEVEL 109.99 FEET BELOW LAND SURFACE DATUM JUN 28, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 102.88 ; APR 06, 1984 102.56 ; JUL 12, 1984 101.56 .

WELL 17S 30W 13CBB 01 SITE NUMBER 383433100353601

17-30W-13CBB. F. L. BURMEISTER. DRILLED, WATER-TABLE WELL IN OGALLALA FORMATION. DEPTH 94, FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, WEST, 0.1 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2946. FEET

RECORDS AVAILABLE 1948, 1950 TO CURRENT YEAR.

HIGHEST WATER LEVEL 80.55 FEET BELOW LAND SURFACE DATUM APR 07, 1964.

LOWEST WATER LEVEL 90.94 FEET BELOW LAND SURFACE DATUM JUL 07, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 14, 1983 90.49 ; JAN 09, 1984 90.31 ; APR 06, 1984 90.89 ; JUL 12, 1984 90.76 .

## LANE COUNTY -- CONTINUED

### WELL 18S 27W 13CCC 01 SITE NUMBER 382857100154501

18-27W-13CCC. C. H. MERRIWEATHER. DRILLED, UNUSED, WATER-TABLE WELL IN OGALLALA FORMATION. DEPTH 93 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, SOUTHEAST, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2674. FEET

RECORDS AVAILABLE 1948, 1950 TO CURRENT YEAR.

HIGHEST WATER LEVEL 83.34 FEET BELOW LAND SURFACE DATUM DEC 09, 1969.

LOWEST WATER LEVEL 88.99 FEET BELOW LAND SURFACE DATUM SEP 19, 1958.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 14, 1983 88.39 ; JAN 09, 1984 86.50 ; APR 06, 1984 87.93 ; JUL 12, 1984 87.03 .

### WELL 18S 30W 02AAA 01 SITE NUMBER 383130100354301

18-30W-2AAA. ROBERT CRAMER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 130 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, SOUTHWEST, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2849.0 FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 75.86 FEET BELOW LAND SURFACE DATUM MAR 05, 1973.

LOWEST WATER LEVEL 89.45 FEET BELOW LAND SURFACE DATUM JUL 09, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 87.84 ; APR 06, 1984 86.19 ; JUL 12, 1984 86.48 .

## LEAVENWORTH COUNTY

### WELL 12S 22E 21BCD 01 SITE NUMBER 385932094584301

12-22E-21BCD. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 48 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 793. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.90 FEET BELOW LAND SURFACE DATUM JUN 10, 1982.

LOWEST WATER LEVEL 29.30 FEET BELOW LAND SURFACE DATUM MAR 05, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 27.07 ; MAR 07, 1984 26.38 ; JUN 05, 1984 22.00 ; SEP 14, 1984 26.10 .

### WELL 12S 22E 22CAA 01 SITE NUMBER 385926094572001

12-22E-22CAA. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 48 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 785. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.60 FEET BELOW LAND SURFACE DATUM DEC 26, 1973.

LOWEST WATER LEVEL 23.40 FEET BELOW LAND SURFACE DATUM JUN 11, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 21.03 ; MAR 07, 1984 21.10 ; JUN 05, 1984 17.24 ; SEP 14, 1984 19.00 .

## LOGAN COUNTY

### WELL 11S 32W 04ACD 01 SITE NUMBER 390737100522201

11-32W-4ACD. W. G. HOCKERSMITH. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 209 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CASING, 5.1 FEET BELOW LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3059. FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 102.21 FEET BELOW LAND SURFACE DATUM APR 21, 1969.

LOWEST WATER LEVEL 116.25 FEET BELOW LAND SURFACE DATUM SEP 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 24, 1984 112.83 ; JUN 05, 1984 110.74 ; SEP 12, 1984 112.23 .

### WELL 11S 32W 19AAB 01 SITE NUMBER 390521100542901

11-32W-19AAB. A. D. DEPPERSCHMIDT. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 180 FEET. MEASURING POINT, HOLE IN PUMP BASE, NORTHWEST SIDE, 1.2 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 3073. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 99.46 FEET BELOW LAND SURFACE DATUM JAN 07, 1976.

LOWEST WATER LEVEL 110.80 FEET BELOW LAND SURFACE DATUM JUN 10, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 102.30 ; JUN 05, 1984 102.19 ; SEP 12, 1984 103.69 .

### WELL 11S 36W 06ADD 02 SITE NUMBER 390741101205902

11-36W-6ADD2. USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 220 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA. REPLACES WELL 11-36W-6ADD.

ALTITUDE OF LAND SURFACE 3380. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 135.50 FEET BELOW LAND SURFACE DATUM DEC 01, 1965.

LOWEST WATER LEVEL 179.39 FEET BELOW LAND SURFACE DATUM SEP 14, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 164.57 ; APR 10, 1984 161.79 ; JUN 05, 1984 162.51 ; SEP 12, 1984 178.65 .

## MCPHERSON COUNTY

### WELL 17S 03W 04BBB 01 SITE NUMBER 383630097395501

17-3W-4BBB. USGS. JETTED, WATER-TABLE OBSERVATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 31.6 FEET, DIAMETER 0.75 INCH. MEASURING POINT, TOP OF PIPE, 3.5 FEET ABOVE LSD. MP CHANGED TO 3.1 FEET ABOVE LSD, DECEMBER 28, 1961.

ALTITUDE OF LAND SURFACE 1337.5 FEET

RECORDS AVAILABLE 1950 - 1953, 1955 TO CURRENT YEAR.

HIGHEST WATER LEVEL 9.43 FEET BELOW LAND SURFACE DATUM JUN 10, 1974.

LOWEST WATER LEVEL 28.25 FEET BELOW LAND SURFACE DATUM SEP 26, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 15.90 ; MAR 09, 1984 10.69 ; JUN 06, 1984 11.93 ; SEP 11, 1984 13.87 .

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## MCPHERSON COUNTY -- CONTINUED

### WELL 17S 04W 25DDD 01 SITE NUMBER 383216097421501

17-4W-25DDD. USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 39 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD. REPLACEMENT WELL FOR 17-4W-34AAA, MARCH 1983.

ALTITUDE OF LAND SURFACE 1347.7 FEET

RECORDS AVAILABLE 1946 - 1953, 1955 - 1972, 1983 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.11 FEET BELOW LAND SURFACE DATUM JUL 24, 1951.

LOWEST WATER LEVEL 27.93 FEET BELOW LAND SURFACE DATUM MAR 18, 1957.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 25.25 ; MAR 08, 1984 25.30 ; JUN 06, 1984 22.10 ; SEP 11, 1984 27.40 .

### WELL 17S 05W 07CBB 01 SITE NUMBER 383514097552401

17-5W-7CBB. USGS. JETTED, WATER-TABLE OBSERVATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 30 FEET, DIAMETER 1.5 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD. REPLACEMENT WELL FOR 17-5W-7BBB. MP CHANGED TO 0.5 FOOT ABOVE LSD, JUNE 1982.

ALTITUDE OF LAND SURFACE 1424. FEET

RECORDS AVAILABLE 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.53 FEET BELOW LAND SURFACE DATUM SEP 13, 1982.

LOWEST WATER LEVEL 20.40 FEET BELOW LAND SURFACE DATUM DEC 08, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 19.54 ; MAR 08, 1984 19.83 ; JUN 06, 1984 19.00 ; SEP 11, 1984 18.95 .

### WELL 17S 05W 22BAA 01 SITE NUMBER 383355097514001

17-5W-22BAA. C. L. OLSON. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH NOT REPORTED. MEASURING POINT, TOP OF PIPE, 3.8 FEET ABOVE LSD. REPLACEMENT WELL FOR 17-5W-25AAA, JUNE 1983.

RECORDS AVAILABLE 1983 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.76 FEET BELOW LAND SURFACE DATUM SEP 11, 1984.

LOWEST WATER LEVEL 17.83 FEET BELOW LAND SURFACE DATUM MAR 08, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 08, 1984 17.83 ; SEP 11, 1984 14.76 .

## MEADE COUNTY

### WELL 30S 27W 22CDD 01 SITE NUMBER 372452100153801

30-27W-22CDD. D. ZORTMAN. DRILLED, UNUSED, WATER-TABLE WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 20 FEET, DIAMETER 8 INCHES. MEASURING POINT, TOP OF CASING, 3.0 FEET ABOVE LSD. MEASURED BY KSBA. MP CHANGED TO TOP OF CASING, 0.4 FOOT ABOVE LSD, JANUARY 1983.

ALTITUDE OF LAND SURFACE 2511. FEET

RECORDS AVAILABLE 1954 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.90 FEET BELOW LAND SURFACE DATUM MAR 19, 1974.

LOWEST WATER LEVEL 17.68 FEET BELOW LAND SURFACE DATUM SEP 21, 1960.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 11, 1984 9.39 ; APR 12, 1984 9.52 ; JUL 25, 1984 10.31 .

### WELL 30S 27W 32DDD 01 SITE NUMBER 372307100171401

30-27W-32DDD. MEADE COUNTY. DRIVEN AND BORED, WATER-TABLE OBSERVATION WELL IN PLIO-PLEIST SERIES. DEPTH 18 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, EAST, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2475.0 FEET

RECORDS AVAILABLE 1953 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.69 FEET BELOW LAND SURFACE DATUM APR 12, 1984.

LOWEST WATER LEVEL WELL DRY SEP 13, 1956; DEC 04, 1956; MAR 19, 1957; JUN 18, 1957.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 26, 1983 9.63 ; JAN 11, 1984 7.50 ; APR 12, 1984 6.69 ; JUL 25, 1984 8.36 .

MEADE COUNTY -- CONTINUED

WELL 30S 30W 29ABB 01 SITE NUMBER 372454100361701

30-30W-29ABB. H. E. CHAPPELL. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 340 FEET, DIAMETER 16 INCHES. MEASURING POINT, CUTOUT LOWER EDGE OF PUMP, EAST, 1.25 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2803. FEET

RECORDS AVAILABLE 1959, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 144.59 FEET BELOW LAND SURFACE DATUM JAN 06, 1959.

LOWEST WATER LEVEL 185.69 FEET BELOW LAND SURFACE DATUM OCT 06, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 26, 1983 185.69 ; JAN 11, 1984 183.62 ; APR 12, 1984 183.01 .

WELL 32S 28W 04ADD 01 SITE NUMBER 371732100214701

32-28W-4ADD. (77) J. W. WOOD. DRILLED, WATER-TABLE DOMESTIC AND STOCK WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 199 FEET, DIAMETER 3 INCHES. MEASURING POINT, BOTTOM OF "T" IN 3-INCH CASING, 2.6 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2546. FEET

RECORDS AVAILABLE 1939 TO CURRENT YEAR.

HIGHEST WATER LEVEL 60.18 FEET BELOW LAND SURFACE DATUM MAR 19, 1952.

LOWEST WATER LEVEL 76.47 FEET BELOW LAND SURFACE DATUM JUL 14, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 26, 1983 73.61 ; JAN 11, 1984 72.69 ; APR 12, 1984 71.89 ; JUL 25, 1984 74.19 .

WELL 33S 28W 29BCB 01 SITE NUMBER 370857100234601

33-28W-29BCB. FRED BORCHERS. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 160 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP NORTHEAST SIDE OF CASING, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2371.3 FEET

RECORDS AVAILABLE 1939 - 1944, 1953 TO CURRENT YEAR.

HIGHEST WATER LEVEL 13.10 FEET BELOW LAND SURFACE DATUM JUN 10, 1941.

LOWEST WATER LEVEL 19.99 FEET BELOW LAND SURFACE DATUM SEP 06, 1957.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 12, 1984 15.86 ; APR 12, 1984 15.10 .

WELL 33S 30W 35CB 01 SITE NUMBER 370754100333501

33-30W-35CB. COLUMBIAN FUEL CORP. DRILLED, ARTESIAN INDUSTRIAL WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 420 FEET, DIAMETER 10 INCHES. MEASURING POINT, LOWER LIP OF 4-INCH COUPLING, WEST, 0.7 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2634. FEET

RECORDS AVAILABLE 1959, 1961 - 1969, 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 157.18 FEET BELOW LAND SURFACE DATUM JUN 08, 1964.

LOWEST WATER LEVEL 175.88 FEET BELOW LAND SURFACE DATUM APR 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

APR 12, 1984 175.88 .

MORTON COUNTY

SITE NUMBER 371333101341501

WELL 31S 39W 33BCC 01

31-39W-33BCC. FRANK P. SHARMAN. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS, OGALLALA FORMATION, AND UNDIFFERENTIATED MESOZOIC DEPOSITS. DEPTH 560 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER EDGE SLANT PIPE, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3253. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 160.57 FEET BELOW LAND SURFACE DATUM JAN 18, 1967.

LOWEST WATER LEVEL 224.07 FEET BELOW LAND SURFACE DATUM APR 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1984 222.40 ; APR 17, 1984 224.07 .

SITE NUMBER 371945101412701

WELL 31S 40W 29ABB 01

31-40W-29ABB. CHAFFIN AND MORRELL. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 215 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTH SIDE OF PUMP BASE, 1.05 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3331. FEET

RECORDS AVAILABLE 1959, 1962 - 1963, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 162.43 FEET BELOW LAND SURFACE DATUM MAR 02, 1959.

LOWEST WATER LEVEL 189.86 FEET BELOW LAND SURFACE DATUM SEP 11, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 183.66 ; JAN 05, 1984 182.23 ; APR 17, 1984 182.95 .

SITE NUMBER 372043101572701

WELL 31S 43W 14DDC 01

31-43W-14DDC. (22) E. A. WILCOX. DRILLED, UNUSED, WATER-TABLE WELL IN LOWER CRETACEOUS SERIES. DEPTH 94 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP OF CASING, SOUTH, 1.2 FEET ABOVE LSD. MP CHANGED TO HOLE IN PLATE, NORTH, AT LAND SURFACE, JANUARY 1974. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3574. FEET

RECORDS AVAILABLE 1939 - 1953, 1956 TO CURRENT YEAR.

HIGHEST WATER LEVEL 65.63 FEET BELOW LAND SURFACE DATUM JAN 20, 1969.

LOWEST WATER LEVEL 78.29 FEET BELOW LAND SURFACE DATUM AUG 14, 1958.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 69.21 ; JAN 04, 1984 69.29 ; APR 17, 1984 69.30 ; AUG 08, 1984 69.53 .

SITE NUMBER 370935101394701

WELL 33S 40W 27CCC 01

33-40W-27CCC. RAY KALLENBACH. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 316 FEET. MEASURING POINT, TOP OF CUT-OUT, NORTH SIDE OF PUMP, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3308. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 80.15 FEET BELOW LAND SURFACE DATUM JAN 18, 1967.

LOWEST WATER LEVEL 91.76 FEET BELOW LAND SURFACE DATUM APR 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1984 91.68 ; APR 17, 1984 91.76 ; AUG 08, 1984 93.27 .

MORTON COUNTY -- CONTINUED

WELL 33S 41W 03AAD 01

SITE NUMBER 371242101452201

33-41W-3AAD. WARREN BOWKER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 305 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE UNDER PUMP BASE, SOUTH, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3425. FEET

RECORDS AVAILABLE 1959, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 111.20 FEET BELOW LAND SURFACE DATUM MAR 20, 1959.

LOWEST WATER LEVEL 171.90 FEET BELOW LAND SURFACE DATUM OCT 13, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1984 147.33 ; APR 17, 1984 148.01 .

WELL 35S 40W 03BBB 01

SITE NUMBER 370224101394601

35-40W-3BBB. W. D. HERSHEY. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 385 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER EDGE OF PUMP BASE, 0.7 FOOT ABOVE LSD. MP CHANGED TO TOP OF CASING, AT LAND SURFACE. MARCH 1979. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3367. FEET

RECORDS AVAILABLE 1959, 1962 - 1963, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 172.52 FEET BELOW LAND SURFACE DATUM JUN 09, 1976.

LOWEST WATER LEVEL 183.75 FEET BELOW LAND SURFACE DATUM JAN 19, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 178.53 ; JAN 05, 1984 176.65 ; APR 17, 1984 175.58 ; AUG 08, 1984 179.36 .

NESS COUNTY

WELL 18S 21W 31CAA 01

SITE NUMBER 382632099411501

18-21W-31CAA. GEORGE DIEMER. DRILLED, UNUSED WATER-TABLE OBSERVATION WELL IN PLEISTOCENE AND FLUVIAL DEPOSITS. DEPTH 44 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP OF CASING, 0.3 FOOT ABOVE LSD. REPLACEMENT WELL FOR 18-21W-31BCB.

ALTITUDE OF LAND SURFACE 2122. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 30.69 FEET BELOW LAND SURFACE DATUM MAR 19, 1974.

LOWEST WATER LEVEL 34.55 FEET BELOW LAND SURFACE DATUM OCT 04, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1983 32.63 ; FEB 06, 1984 32.26 ; MAR 08, 1984 32.10 ; JUN 07, 1984 31.77 ;
SEP 17, 1984 33.45 .

WELL 19S 23W 01CCB 01

SITE NUMBER 382526099492301

19-23W-1CCB. JAMES R. CLOUSTON. DRILLED, ARTESIAN IRRIGATION WELL IN THE DAKOTA FORMATION. DEPTH 450 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTHWEST SIDE OF PUMP BASE, 0.9 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2214. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 75.30 FEET BELOW LAND SURFACE DATUM MAY 12, 1971.

LOWEST WATER LEVEL 89.83 FEET BELOW LAND SURFACE DATUM DEC 21, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1983 89.83 ; FEB 06, 1984 88.54 .

NESS COUNTY -- CONTINUED

WELL 19S 23W 08CBB 01 SITE NUMBER 382447099534801

19-23W-8CBB. ROBERT SCHNEIPP. DRILLED, WATER-TABLE OBSERVATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 1.25 INCHES, DEPTH 52 FEET. MEASURING POINT, TOP OF PIPE, 3.2 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2220. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 18.59 FEET BELOW LAND SURFACE DATUM JUL 27, 1967.

LOWEST WATER LEVEL 29.97 FEET BELOW LAND SURFACE DATUM MAY 23, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 06, 1984 21.80 ; MAR 08, 1984 21.57 ; JUN 07, 1984 21.34 ; SEP 17, 1984 21.77 .

WELL 20S 22W 20CCC 01 SITE NUMBER 381728099470701

20-22W-20CCC. (2) C. L. WHITLEY. DUG AND DRILLED, WATER-TABLE IRRIGATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 51 FEET, DIAMETER 20 INCHES. MEASURING POINT. TOP OF SOUTH SIDE OF CONCRETE CURB, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2189. FEET

RECORDS AVAILABLE 1940 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.81 FEET BELOW LAND SURFACE DATUM JUL 12, 1951.

LOWEST WATER LEVEL 64.09 FEET BELOW LAND SURFACE DATUM SEP 07, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1983 47.79 ; FEB 06, 1984 44.00 ; MAR 08, 1984 45.11 ; JUN 07, 1984 44.56 .

WELL 20S 23W 32CDA 01 SITE NUMBER 381550099532001

20-23W-32CDA. (1) J. E. FICKEN. DRILLED, WATER-TABLE IRRIGATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 19 INCHES, DEPTH 67 FEET. MEASURING POINT, TOP EAST SIDE OF SILL UNDER PUMP, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2233. FEET

RECORDS AVAILABLE 1940 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.59 FEET BELOW LAND SURFACE DATUM OCT 24, 1951.

LOWEST WATER LEVEL 41.50 FEET BELOW LAND SURFACE DATUM MAY 25, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1983 36.13 ; FEB 06, 1984 36.60 ; MAR 08, 1984 36.56 ; JUN 07, 1984 36.12 ;

SEP 17, 1984 36.23 .

OSBORNE COUNTY

WELL 06S 12W 23CDC 01 SITE NUMBER 393038098374501

6-12W-23CDC. C. FINK. DUG, WATER-TABLE DOMESTIC WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 30 FEET, DIAMETER 36 INCHES, CRIBBED WITH ROCK. MEASURING POINT, TOP OF BOARD PLATFORM, SOUTH, 0.75 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1505.9 FEET

RECORDS AVAILABLE 1945 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.[illegible]3 FEET BELOW LAND SURFACE DATUM JUL 24, 1951.

LOWEST WATER LEVEL 30.05 FEET BELOW LAND SURFACE DATUM APR 27, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 03, 1983 25.95 ; MAR 01, 1984 25.67 ; JUN 05, 1984 24.52 ; SEP 10, 1984 25.77 .

OSBORNE COUNTY -- CONTINUED

WELL 07S 12W 28ABA 01 SITE NUMBER 392518098393601

7-12W-28ABA. C. E. GALLEY. DRILLED, WATER-TABLE DOMESTIC AND STOCK WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 12 INCHES, DEPTH 40 FEET, TILE CASING. MEASURING POINT, TOP SURFACE OF CONCRETE PLATFORM, 0.5 FOOT ABOVE LSD. MP CHANGED TO 3.8 FEET BELOW LSD, DECEMBER 1977. MEASURED BY KSBA.

RECORDS AVAILABLE 1946 TO CURRENT YEAR.

HIGHEST WATER LEVEL 26.44 FEET BELOW LAND SURFACE DATUM MAY 25, 1952.

LOWEST WATER LEVEL 37.67 FEET BELOW LAND SURFACE DATUM SEP 10, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 31.46 ; JUN 05, 1984 35.19 ; SEP 10, 1984 37.67 .

WELL 07S 15W 10CCC 01 SITE NUMBER 392710098591901

7-15W-10CCC. USBR. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 55 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.4 FEET ABOVE LSD. MP CHANGED TO 4.2 FEET ABOVE LSD, JUNE 1973. MEASURED BY USBR.

ALTITUDE OF LAND SURFACE 1648. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.50 FEET BELOW LAND SURFACE DATUM MAR 13, 1974.

LOWEST WATER LEVEL 22.9 FEET BELOW LAND SURFACE DATUM AUG 03, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 17.36 ; MAR 01, 1984 17.35 ; JUN 05, 1984 16.64 ; SEP 10, 1984 19.50 .

PAWNEE COUNTY

WELL 21S 15W 32DAA 01 SITE NUMBER 381047099185301

21-15W-32DAA. SANFORD CO-OP. DRILLED, UNUSED, WATER-TABLE DOMESTIC WELL IN ALLUVIUM. DEPTH 73 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP OF CASING, NORTHEAST, 0.4 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2056.00 FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.59 FEET BELOW LAND SURFACE DATUM MAR 20, 1974.

LOWEST WATER LEVEL 33.31 FEET BELOW LAND SURFACE DATUM DEC 30, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1983 30.50 ; JAN 23, 1984 30.59 ; MAR 09, 1984 30.55 ; JUN 07, 1984 29.86 ;

SEP 14, 1984 32.07 .

WELL 21S 19W 30BCC 01 SITE NUMBER 381147099272701

21-19W-30BCC. USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 69 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.6 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2027.00 FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.87 FEET BELOW LAND SURFACE DATUM MAR 20, 1974.

LOWEST WATER LEVEL 47.01 FEET BELOW LAND SURFACE DATUM SEP 14, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1983 45.68 ; JAN 23, 1984 45.45 ; MAR 06, 1984 45.21 ; JUN 07, 1984 44.56 ;

SEP 14, 1984 47.01 .

## PAWNEE COUNTY -- CONTINUED

### WELL 21S 20W 29BBB 01 SITE NUMBER 381207099325201

21-20W-29BBB. E. R. MUSIL. DRILLED, UNUSED, WATER-TABLE IRRIGATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 16 INCHES, DEPTH 117 FEET. MEASURING POINT, TOP OF CONCRETE, 0.73 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2104.00 FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.85 FEET BELOW LAND SURFACE DATUM MAR 16, 1966.

LOWEST WATER LEVEL 49.82 FEET BELOW LAND SURFACE DATUM SEP 07, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1983 45.41 ; JAN 23, 1984 45.13 ; MAR 08, 1984 44.80 ; JUN 07, 1984 43.46 ;

SEP 14, 1984 49.10 .

### WELL 22S 15W 03AAA 01 SITE NUMBER 381022098570001

22-15W-3AAA. KGS. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 51 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 0.9 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 1970. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.84 FEET BELOW LAND SURFACE DATUM DEC 18, 1973.

LOWEST WATER LEVEL 28.27 FEET BELOW LAND SURFACE DATUM JAN 15, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 19, 1983 27.10 ; MAR 08, 1984 27.25 ; JUN 07, 1984 27.32 .

### WELL 22S 15W 03AAA 02 SITE NUMBER 381022098570002

22-15W-3AAA2. KGS. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 196 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 0.76 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1970. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.47 FEET BELOW LAND SURFACE DATUM OCT 30, 1973.

LOWEST WATER LEVEL 52.54 FEET BELOW LAND SURFACE DATUM SEP 10, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 19, 1983 29.24 ; JAN 24, 1984 29.15 ; MAR 08, 1984 29.22 ; JUN 07, 1984 32.84 ;

SEP 14, 1984 45.77 .

### WELL 22S 16W 06BBA 01 SITE NUMBER 381021099074601

22-16W-6BBA. (8A) FRED B. REED. BORED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DIAMETER 1.25 INCHES, DEPTH 30 FEET. MEASURING POINT, TOP OF PIPE, 4.7 FEET ABOVE LSD. MEASURED BY KSBA. MP CHANGED TO 4.4 FEET ABOVE LSD, APRIL 1984.

ALTITUDE OF LAND SURFACE 2010. FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.60 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 19.12 FEET BELOW LAND SURFACE DATUM SEP 14, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 19, 1983 18.25 ; JAN 23, 1984 18.17 ; MAR 08, 1984 18.21 ; JUN 07, 1984 17.34 ;

SEP 14, 1984 19.12 .

PAWNEE COUNTY -- CONTINUED

WELL 22S 16W 23AAA 01 SITE NUMBER 380744099023201

22-16W-23AAA. EDGAR CLARK. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 60 FEET, DIAMETER 19 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 0.2 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2011. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 21.19 FEET BELOW LAND SURFACE DATUM JUN 25, 1974.

LOWEST WATER LEVEL 38.88 FEET BELOW LAND SURFACE DATUM JUN 07, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 19, 1983 34.96 ; JAN 24, 1984 35.03 ; MAR 08, 1984 35.14 ; JUN 07, 1984 38.88 ;
SEP 14, 1984 35.30 .

WELL 22S 17W 18AAD 01 SITE NUMBER 380830099133401

22-17W-18AAD. (7A) RALPH LUPFER. DRILLED, WATER-TABLE IRRIGATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 16 INCHES, DEPTH 122 FEET. MEASURING POINT, TOP OF 1.25 INCH PIPE, 1.00 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2047. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 24.88 FEET BELOW LAND SURFACE DATUM MAR 20, 1974.

LOWEST WATER LEVEL 52.07 FEET BELOW LAND SURFACE DATUM SEP 14, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1983 38.53 ; JAN 23, 1984 37.84 ; MAR 08, 1984 37.70 ; JUN 07, 1984 41.19 ;
SEP 14, 1984 52.07 .

WELL 22S 19W 07AAA 01 SITE NUMBER 380930099263001

22-19W-7AAA. RAYMOND POLSON. DRILLED, WATER-TABLE OBSERVATION WELL IN DAKOTA SANDSTONE. DEPTH 165 FEET, DIAMETER 1.5 INCHES. MEASURING POINT, TO OF PIPE, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2102. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 52.62 FEET BELOW LAND SURFACE DATUM MAR 17, 1978.

LOWEST WATER LEVEL 114.96 FEET BELOW LAND SURFACE DATUM SEP 14, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1983 66.29 ; MAR 08, 1984 59.57 ; JUN 07, 1984 56.08 ; SEP 14, 1984 114.96 .

WELL 22S 19W 10BBA 01 SITE NUMBER 380929099240301

22-19W-10BBA. DALE R. JOSEFIAK. DRILLED, WATER-TABLE IRRIGATION WELL IN DAKOTA SANDSTONE. DEPTH 130 FEET, DIAMETER 16 INCHES. MEASURING POINT, EAST SIDE OF PUMP, 0.2 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2087.00 FEET

RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 48.35 FEET BELOW LAND SURFACE DATUM MAR 11, 1983.

LOWEST WATER LEVEL 85.33 FEET BELOW LAND SURFACE DATUM SEP 07, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1983 56.86 ; JAN 23, 1984 54.55 ; MAR 08, 1984 53.50 ; JUN 07, 1984 52.39 ;
SEP 14, 1984 67.26 .

## PAWNEE COUNTY -- CONTINUED

### WELL 23S 16W 35CCD 02 SITE NUMBER 375958099032002

23-16W-35CCD2. WILLIAM J. SCHARTZ. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 87 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF CASING, 5.7 FEET ABOVE LSD. REPLACES 23-16W-35CCD, OCTOBER 1980.

RECORDS AVAILABLE 1981 TO CURRENT YEAR, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 21.50 FEET BELOW LAND SURFACE DATUM JAN 26, 1981.

LOWEST WATER LEVEL 28.83 FEET BELOW LAND SURFACE DATUM SEP 06, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 19, 1983 26.66 ; JAN 23, 1984 27.04 ; MAR 09, 1984 26.34 ; JUN 12, 1984 26.32 ;
SEP 06, 1984 28.83 .

### WELL 23S 18W 28DAD 01 SITE NUMBER 380105099174801

23-18W-28DAD. KGS. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 50 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2102. FEET

RECORDS AVAILABLE 1973, 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.32 FEET BELOW LAND SURFACE DATUM NOV 01, 1973.

LOWEST WATER LEVEL 17.64 FEET BELOW LAND SURFACE DATUM APR 17, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 16, 1983 9.31 ; MAR 09, 1984 9.33 ; JUN 07, 1984 8.86 ; SEP 06, 1984 9.71 .

## PHILLIPS COUNTY

### WELL 04S 18W 23CDC 01 SITE NUMBER 394105099192201

4-18W-23CDC. ALLEN LEMON. DRILLED, WATER-TABLE STOCK WELL. DEPTH NOT REPORTED. MEASURING POINT, HOLE UNDER BASE, WEST, 2.9 FEET ABOVE LSD. MEASURED BY KSBA.

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 39.08 FEET BELOW LAND SURFACE DATUM APR 29, 1981.

LOWEST WATER LEVEL 50.90 FEET BELOW LAND SURFACE DATUM DEC 05, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 13, 1983 46.60 ; MAR 06, 1984 44.24 ; JUN 04, 1984 43.42 ; SEP 10, 1984 45.19 .

## POTTAWATOMIE COUNTY

### WELL 09S 11E 19CDB 01 SITE NUMBER 391456096140801

9-11E-19CDB. PEDICORD LAND AND CATTLE COMPANY. DRILLED, WATER-TABLE IRRIGATION WELL IN THE NEWMAN TERRACE DEPOSITS. DEPTH NOT REPORTED, DIAMETER 24 INCHES. MEASURING POINT, HOLE SOUTH SIDE, UNDER PUMP BASE, 2.2 FEET ABOVE LSD. MP CHANGED TO 1.5 FEET ABOVE LSD, SEPTEMBER 1983.

RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 22.20 FEET BELOW LAND SURFACE DATUM DEC 04, 1981.

LOWEST WATER LEVEL 34.15 FEET BELOW LAND SURFACE DATUM JUN 04, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 32.00 ; MAR 05, 1984 31.50 ; JUN 08, 1984 26.20 ; SEP 10, 1984 31.10 .

### WELL 09S 11E 27CAA 01 SITE NUMBER 391417096103601

9-11E-27CAA. JOE STRUB. DRIVEN, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 43 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD. REPLACEMENT WELL FOR 9-11E-27CDA. MP CHANGED TO 0.8 FOOT ABOVE LSD, MARCH 26, 1982.

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.55 FEET BELOW LAND SURFACE DATUM JUN 14, 1982.

LOWEST WATER LEVEL 30.80 FEET BELOW LAND SURFACE DATUM JUN 04, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 21.90 ; MAR 05, 1984 22.60 ; JUN 08, 1984 15.65 ; SEP 10, 1984 21.33 .

POTTAWATOMIE COUNTY -- CONTINUED

WELL 09S 11E 31DCC 01 SITE NUMBER 391305096135201

9-11E-31DCC. KSBA. DRIVEN, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 26 FEET, DIAMETER 0.75-INCHES. MEASURING POINT, TOP OF PIPE, 3.2 FEET ABOVE LSD. MP CHANGED TO 0.9 FOOT ABOVE LSD, JUNE 1971. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 962. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 9.95 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 18.18 FEET BELOW LAND SURFACE DATUM MAR 09, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 15.90 ; MAR 05, 1984 14.70 ; JUN 08, 1984 10.92 ; SEP 10, 1984 14.95 .

WELL 09S 11E 32ADC 01 SITE NUMBER 391331096122601

9-11E-32ADC. POTTAWATOMIE COUNTY TOWNSHIP. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH NOT REPORTED, DIAMETER 8 INCHES. MEASURING POINT, HOLE IN TOP OF CAP, 2.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 968. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.27 FEET BELOW LAND SURFACE DATUM JUN 08, 1984.

LOWEST WATER LEVEL 28.15 FEET BELOW LAND SURFACE DATUM MAY 23, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 22.20 ; MAR 05, 1984 21.60 ; JUN 08, 1984 17.27 ; SEP 10, 1984 20.18 .

WELL 09S 11E 34CAB 01 SITE NUMBER 391325096104401

9-11E-34CAB. KP+L. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIAL DEPOSITS. DEPTH 66 FEET, DIAMETER 8 INCHES. MEASURING POINT, TO OF CASING, 1.1 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 961. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.64 FEET BELOW LAND SURFACE DATUM JUL 01, 1984.

LOWEST WATER LEVEL 29.32 FEET BELOW LAND SURFACE DATUM JUN 25, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 01, 1983 | 18.99 | JAN 01, 1984 | 17.16 | MAY 01, 1984 | 14.20 | AUG 01, 1984 | 14.77 |
| NOV 01 | 17.82 | FEB 01 | 17.01 | JUN 01 | 13.19 | SEP 01 | 15.75 |
| DEC 01 | 18.64 | MAR 05 | 18.20 | 08 | 14.28 | 10 | 17.09 |
| 05 | 18.50 | APR 01 | 16.27 | JUL 01 | 12.64 | | |

WELL 09S 11E 35DDD 01 SITE NUMBER 391305096085401

9-11E-35DDD. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN NEWMAN TERRACE DEPOSITS. DEPTH 45 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 4.5 FEET ABOVE LSD. MP CHANGED TO 4.0 FEET ABOVE LSD, SEPTEMBER 1983. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 956. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.70 FEET BELOW LAND SURFACE DATUM JUN 22, 1974.

LOWEST WATER LEVEL 25.06 FEET BELOW LAND SURFACE DATUM JUN 04, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 17.35 ; MAR 05, 1984 17.44 ; JUN 08, 1984 13.40 ; SEP 10, 1984 15.30 .

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POTTAWATOMIE COUNTY -- CONTINUED

SITE NUMBER 391142096285501

WELL 10S 08E 12CBB 01

10-8E-12CBB. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN NEWMAN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 41 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 4.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1002. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.55 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 17.80 FEET BELOW LAND SURFACE DATUM MAR 14, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 14.70 .

SITE NUMBER 391050096295201

WELL 10S 08E 14CBA 01

10-8E-14CBA. C. K. PROCESSING. DRILLED, WATER-TABLE IRRIGATION WELL IN NEWMAN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 18 INCHES, DEPTH 69 FEET. MEASURING POINT, LOWER EDGE OF CUTOUT IN PUMP FRAME, 1.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1009. FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.75 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 24.87 FEET BELOW LAND SURFACE DATUM MAR 11, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 22.75 ; MAR 09, 1984 22.26 ; JUN 08, 1984 16.90 ; SEP 10, 1984 21.17 .

SITE NUMBER 391134096171301

WELL 10S 10E 10DBC 01

10-10E-10DBC. CONRAD ERIKSEN. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DEPTH 67 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP, 3.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 973. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.44 FEET BELOW LAND SURFACE DATUM MAR 22, 1973.

LOWEST WATER LEVEL 22.38 FEET BELOW LAND SURFACE DATUM DEC 09, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 21.00 ; MAR 09, 1984 19.80 ; JUN 08, 1984 16.70 ; SEP 10, 1984 20.40 .

SITE NUMBER 391226096084501

WELL 10S 11E 01CBC 01

10-11E-1CBC. POTTAWATOMIE TOWNSHIP. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 81 FEET, DIAMETER 8 INCHES. MEASURING POINT, TOP OF CASING, 1.1 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 953. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.99 FEET BELOW LAND SURFACE DATUM JUL 01, 1984.

LOWEST WATER LEVEL 25.56 FEET BELOW LAND SURFACE DATUM MAY 01, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 01, 1983 | 21.55 | FEB 01, 1984 | 19.64 | MAY 01, 1984 | 17.25 | AUG 01, 1984 | 17.63 |
| NOV 01 | 21.37 | MAR 01 | 19.42 | JUN 01 | 16.05 | SEP 01 | 18.46 |
| DEC 01 | 21.35 | 05 | 20.55 | 08 | 17.15 | 10 | 19.63 |
| 05 | 21.27 | APR 01 | 18.96 | JUL 01 | 15.99 | | |

## POTTAWATOMIE COUNTY -- CONTINUED

### WELL 10S 11E 03BCA 01 SITE NUMBER 391246096105301

10-11E-3BCA. KP+L. DRIVEN, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 45.5 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 5.0 FEET ABOVE LSD. MP CHANGED TO 3.0 FEET ABOVE LSD, SEPTEMBER 1983. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 963. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.15 FEET BELOW LAND SURFACE DATUM JUN 08, 1984.

LOWEST WATER LEVEL 28.03 FEET BELOW LAND SURFACE DATUM DEC 09, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 20.33 ; MAR 09, 1984 20.03 ; JUN 08, 1984 16.15 ; SEP 10, 1984 20.19 .

### WELL 10S 11E 04ACB 01 SITE NUMBER 391246096113501

10-11E-4ACB. C. R. FULMER. DRILLED, WATER-TABLE IRRIGATION WELL IN NEWMAN TERRACE DEPOSITS. DEPTH 85 FEET, DIAMETER 24 INCHES. MEASURING POINT, TOP OF CASING, SOUTH, 0.5 FOOT ABOVE LSD. MP CHANGED TO TOP OF CONCRETE CASING, NORTH, 0.3 FOOT ABOVE LSD IN 1974. MP CHANGED TO 1.0 FOOT ABOVE LSD, SEPTEMBER 1983.

ALTITUDE OF LAND SURFACE 968. FEET

RECORDS AVAILABLE 1967, 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 22.15 FEET BELOW LAND SURFACE DATUM JUN 08, 1984.

LOWEST WATER LEVEL 31.30 FEET BELOW LAND SURFACE DATUM MAR 09, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 26.50 ; MAR 05, 1984 26.20 ; JUN 08, 1984 22.15 ; SEP 10, 1984 26.55 .

### WELL 10S 12E 07BBC 01 SITE NUMBER 391159096073701

10-12E-7BBC. PESSEMIER FARM COMPANY. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DEPTH 84 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, WEST SIDE, 2.75 FEET ABOVE LSD. MP CHANGED TO 1.0 FOOT ABOVE LSD, SEPTEMBER 1983.

RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.48 FEET BELOW LAND SURFACE DATUM FEB 13, 1974.

LOWEST WATER LEVEL 17.45 FEET BELOW LAND SURFACE DATUM MAR 09, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 16.40 ; MAR 05, 1984 15.82 ; JUN 08, 1984 12.20 ; SEP 10, 1984 16.30 .

## PRATT COUNTY

### WELL 26S 12W 34CDC 01 SITE NUMBER 374403098372301

26-12W-34CDC. KGS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 210 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.5 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1884. FEET

RECORDS AVAILABLE 1964, 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 41.36 FEET BELOW LAND SURFACE DATUM MAR 05, 1984.

LOWEST WATER LEVEL 47.89 FEET BELOW LAND SURFACE DATUM SEP 22, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 12, 1983 45.21 ; JAN 17, 1984 45.21 ; MAR 05, 1984 41.36 ; JUN 05, 1984 42.75 .

## PRATT COUNTY -- CONTINUED

### WELL 26S 12W 34CDC 02 SITE NUMBER 374403098372302

26-12W-34CDC2. KGS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 145 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.7 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1884. FEET

RECORDS AVAILABLE 1964, 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 34.35 FEET BELOW LAND SURFACE DATUM MAR 23, 1981.

LOWEST WATER LEVEL 46.58 FEET BELOW LAND SURFACE DATUM SEP 22, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 12, 1983 43.89 ; JAN 17, 1984 43.92 ; MAR 05, 1984 43.77 ; JUN 05, 1984 42.11 ;

SEP 04, 1984 44.04 .

### WELL 26S 13W 34BCB 01 SITE NUMBER 374438098441601

26-13W-34BCB. GEORGE SOAKEN. DRILLED, UNUSED, INDUSTRIAL WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 75 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, 0.7 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1950. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 41.63 FEET BELOW LAND SURFACE DATUM JUL 18, 1960.

LOWEST WATER LEVEL 54.78 FEET BELOW LAND SURFACE DATUM SEP 09, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 12, 1983 53.34 ; JAN 17, 1984 52.99 ; MAR 12, 1984 52.51 ; JUN 05, 1984 51.91 ;

SEP 06, 1984 54.50 .

### WELL 26S 14W 17DCB 01 SITE NUMBER 374648098522901

26-14W-17DCB. D. E. HEMPHILL. DRILLED, WATER-TABLE IRRIGATION WELL IN CRETE AND GRAND ISLAND FORMATIONS. DEPTH 100 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, EAST, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2010. FEET

RECORDS AVAILABLE 1960, 1962 - 1963, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.0 FEET BELOW LAND SURFACE DATUM MAY 11, 1960.

LOWEST WATER LEVEL 32.06 FEET BELOW LAND SURFACE DATUM SEP 06, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 12, 1983 28.05 ; JAN 18, 1984 27.83 ; MAR 12, 1984 27.50 ; JUN 05, 1984 26.98 ;

SEP 06, 1984 32.06 .

### WELL 27S 12W 12DAA 01 SITE NUMBER 374238098343001

27-12W-12DAA. W. B. THOMPSON. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 115 FEET, DIAMETER 2 INCHES. MEASURING POINT, WEST SIDE OF CASING, 1.7 FEET ABOVE LSD. REPLACEMENT WELL FOR 29-13W-13AAA, APRIL 1981.

RECORDS AVAILABLE 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 55.20 FEET BELOW LAND SURFACE DATUM DEC 17, 1982.

LOWEST WATER LEVEL 74.03 FEET BELOW LAND SURFACE DATUM SEP 08, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 12, 1983 55.97 ; JAN 16, 1984 55.84 ; MAR 05, 1984 56.08 ; JUN 05, 1984 55.65 ;

SEP 04, 1984 56.37 .

## PRATT COUNTY -- CONTINUED

### WELL 27S 14W 12DDD 01 SITE NUMBER 374217098474101

27-14W-12DDD. KGS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 158 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.5 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1983. FEET

RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 56.04 FEET BELOW LAND SURFACE DATUM JUN 23, 1975.

LOWEST WATER LEVEL 64.16 FEET BELOW LAND SURFACE DATUM SEP 06, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 12, 1983 63.38 ; JAN 18, 1984 63.25 ; MAR 12, 1984 63.05 ; JUN 05, 1984 62.93 ;

SEP 06, 1984 64.16 .

### WELL 29S 12W 20CCD 01 SITE NUMBER 373000098394501

29-12W-20CCD. VERNON HIRT. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 215 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER EDGE OF PUMP, SOUTHEAST SIDE, 0.9 FEET ABOVE LSD. MP CHANGED TO WEST SIDE OF PUMP BASE, 1.30 FEET ABOVE LSD, MARCH 10, 1981. REPLACEMENT WELL FOR 29-13W-13AAA, APRIL 1981.

ALTITUDE OF LAND SURFACE 1907. FEET

RECORDS AVAILABLE 1966, 1973, 1978, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 98.43 FEET BELOW LAND SURFACE DATUM DEC 14, 1973.

LOWEST WATER LEVEL 122.01 FEET BELOW LAND SURFACE DATUM DEC 17, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 12, 1983 99.03 ; JAN 16, 1984 109.43 ; MAR 05, 1984 98.63 ; JUN 05, 1984 112.61 ;

SEP 04, 1984 99.31 .

## RAWLINS COUNTY

### WELL 03S 33W 03DCC 01 SITE NUMBER 394354101003101

3-33W-3DCC. E. CORLEY. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DEPTH 68 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP BASE, NORTH, AT LAND SURFACE.

ALTITUDE OF LAND SURFACE 2823. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 20.38 FEET BELOW LAND SURFACE DATUM OCT 09, 1962.

LOWEST WATER LEVEL 31.20 FEET BELOW LAND SURFACE DATUM SEP 17, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 11, 1984 26.09 ; JUN 04, 1984 24.53 ; SEP 13, 1984 26.42 .

### WELL 03S 36W 17CCC 01 SITE NUMBER 394711101233201

3-36W-17CCC. C. K. FISHER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 300 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3375. FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 195.20 FEET BELOW LAND SURFACE DATUM MAR 07, 1966.

LOWEST WATER LEVEL 223.80 FEET BELOW LAND SURFACE DATUM SEP 16, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 24, 1984 207.08 ; JUN 04, 1984 206.37 ; SEP 13, 1984 208.76 .

RAWLINS COUNTY -- CONTINUED

WELL 04S 36W 06BBB 01 SITE NUMBER 394428101244001

4-36W-6BBB. JOE C. WAHRMAN. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 295 FEET, DIAMETER 16 INCHES. MEAUSRING POINT, HOLE IN PUMP BASE, SOUTHEAST, 0.6 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3370. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 182.20 FEET BELOW LAND SURFACE DATUM MAR 11, 1975.

LOWEST WATER LEVEL 194.58 FEET BELOW LAND SURFACE DATUM MAR 17, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JUN 04, 1984 188.08 .

WELL 05S 33W 29BDA 01 SITE NUMBER 393533101030001

5-33W-29BDA. MORTON BROS. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 115 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP, SOUTHEAST, 2.3 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 3042. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.18 FEET BELOW LAND SURFACE DATUM JUN 05, 1984.

LOWEST WATER LEVEL 21.97 FEET BELOW LAND SURFACE DATUM SEP 16, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 17.46 ; JUN 05, 1984 16.18 ; SEP 13, 1984 17.33 .

RENO COUNTY

WELL 23S 06W 31DCB 01 SITE NUMBER 380008098011901

23-6W-31DCB. BILL H. CLARK. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 95 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 0.2 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1577. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 23.43 FEET BELOW LAND SURFACE DATUM DEC 16, 1981.

LOWEST WATER LEVEL 40.17 FEET BELOW LAND SURFACE DATUM SEP 16, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 31.11 ; JAN 04, 1984 31.00 ; MAR 12, 1984 31.00 ; JUN 08, 1984 30.81 ;

SEP 10, 1984 38.90 .

WELL 23S 09W 35CCC 01 SITE NUMBER 380000098171701

23-9W-35CCC. KGS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 82 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 1715. FEET

RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 13.50 FEET BELOW LAND SURFACE DATUM MAR 28, 1980.

LOWEST WATER LEVEL 25.63 FEET BELOW LAND SURFACE DATUM MAR 21, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 20.68 ; JAN 04, 1984 20.75 ; MAR 09, 1984 21.20 ; JUN 05, 1984 16.06 ;

SEP 10, 1984 19.64 .

RENO COUNTY -- CONTINUED

WELL 26S 10W 18CDC 01 SITE NUMBER 374637098272501

26-10W-18CDC. KGS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 64 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.5 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1797. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 22.45 FEET BELOW LAND SURFACE DATUM DEC 23, 1980.

LOWEST WATER LEVEL 25.49 FEET BELOW LAND SURFACE DATUM MAR 09, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 25.19 ; JAN 04, 1984 25.29 ; MAR 09, 1984 25.49 ; JUN 05, 1984 24.56 ;
SEP 10, 1984 24.31 .

REPUBLIC COUNTY

WELL 01S 03W 01CCA 01 SITE NUMBER 395926097363101

1-3W-1CCA. GERALD HUCKIN. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH 210 FEET. MEASURING POINT, HOLE IN BASE OF PUMP, 0.6 FOOT ABOVE LSD. REPLACES WELL 1-3W-5BCA.

RECORDS AVAILABLE 1972, 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 134.24 FEET BELOW LAND SURFACE DATUM JUN 17, 1975.

LOWEST WATER LEVEL 152.25 FEET BELOW LAND SURFACE DATUM SEP 10, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 141.25 ; MAR 08, 1984 140.90 ; JUN 06, 1984 139.80 ; SEP 11, 1984 143.80 .

WELL 01S 03W 09C 01 SITE NUMBER 395837097395101

1-3W-9C. KEITH FRYE. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS. DEPTH 167 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CASING, SOUTHWEST, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1635. FEET

RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 138.54 FEET BELOW LAND SURFACE DATUM JUN 04, 1980.

LOWEST WATER LEVEL 144.60 FEET BELOW LAND SURFACE DATUM SEP 11, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 08, 1984 140.70 ; JUN 06, 1984 140.10 ; SEP 11, 1984 144.60 .

WELL 01S 04W 15AAA 01 SITE NUMBER 395820097444301

1-4W-15AAA. WERNER HOOPS. DRILLED, WATER-TABLE DOMESTIC WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS. DEPTH 185 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, UNDER PUMP BASE SOUTH SIDE, 1.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1690. FEET

RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 174.45 FEET BELOW LAND SURFACE DATUM JUN 02, 1981.

LOWEST WATER LEVEL 179.50 FEET BELOW LAND SURFACE DATUM SEP 11, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 175.50 ; MAR 08, 1984 175.40 ; JUN 06, 1984 175.56 ; SEP 11, 1984 179.50 .

## RICE COUNTY

### WELL 18S 09W 04BCC 01 SITE NUMBER 383058098194601

18-9W-4BCC. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 194 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.65 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1748. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 47.65 FEET BELOW LAND SURFACE DATUM MAR 09, 1983.

LOWEST WATER LEVEL 92.05 FEET BELOW LAND SURFACE DATUM SEP 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 57.45 ; MAR 12, 1984 52.25 ; JUN 08, 1984 51.81 ; SEP 10, 1984 85.38 .

### WELL 18S 09W 04BCC 02 SITE NUMBER 383058098194602

18-9W-4BCC2. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 97 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.5 FEET ABOVE LSD. MEASURED BY KSBA.

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 49.17 FEET BELOW LAND SURFACE DATUM OCT 27, 1966.

LOWEST WATER LEVEL 67.42 FEET BELOW LAND SURFACE DATUM SEP 16, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 53.32 ; MAR 12, 1984 51.01 ; JUN 08, 1984 49.80 .

### WELL 18S 10W 24BBB 01 SITE NUMBER 382840098230601

18-10W-24BBB. F. W. ROELF. DRILLED, WATER-TABLE STOCK WELL. DEPTH 144 FEET, DIAMETER 6 INCHES. MEASURING POINT, HOLE IN PUMP BASE, SOUTH, 0.4 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1755. FEET

RECORDS AVAILABLE 1945, 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.89 FEET BELOW LAND SURFACE DATUM JUL 05, 1945.

LOWEST WATER LEVEL 42.01 FEET BELOW LAND SURFACE DATUM SEP 16, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 37.96 ; MAR 12, 1984 37.04 ; JUN 08, 1984 35.18 ; SEP 10, 1984 37.85 .

### WELL 20S 08W 22AAA 01 SITE NUMBER 381813098110101

20-8W-22AAA. CECIL M. TOBIAS. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH 59 FEET, DIAMETER 12 INCHES. MEASURING POINT, TOP OF CASING, AT LAND SURFACE.

ALTITUDE OF LAND SURFACE 1644. FEET

RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.5 FEET BELOW LAND SURFACE DATUM MAR 27, 1979.

LOWEST WATER LEVEL 15.58 FEET BELOW LAND SURFACE DATUM SEP 10, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 15.17 ; JAN 24, 1984 15.12 ; MAR 12, 1984 15.08 ; JUN 08, 1984 13.41 ;
SEP 10, 1984 15.58 .

### WELL 20S 09W 12DDA 01 SITE NUMBER 381918098132601

20-9W-12DDA. DAVID C. GRIFFIN. DRIVEN, WATER-TABLE DOMESTIC WELL IN ALLUVIUM. DEPTH 32 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1664. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.05 FEET BELOW LAND SURFACE DATUM OCT 05, 1973.

LOWEST WATER LEVEL 16.28 FEET BELOW LAND SURFACE DATUM SEP 10, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 13.77 ; JAN 24, 1984 13.56 ; MAR 12, 1984 13.38 ; JUN 08, 1984 11.78 ;
SEP 10, 1984 16.28 .

## RICE COUNTY -- CONTINUED

### WELL 21S 08W 09CBD 01 SITE NUMBER 381411098125601

21-8W-9CBD. JOHN WILKEY. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH 78 FEET. MEASURING POINT, 3/8-INCH PLUG IN SOUTH SIDE OF BASE, 0.8 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 1647. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.44 FEET BELOW LAND SURFACE DATUM NOV 16, 1977.

LOWEST WATER LEVEL 11.75 FEET BELOW LAND SURFACE DATUM MAR 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 11.58 ; JAN 24, 1984 11.70 ; MAR 12, 1984 11.75 ; JUN 08, 1984 10.43 .

### WELL 21S 08W 25ABB 01 SITE NUMBER 381203098090501

21-8W-25ABB. RIVER VALLEY FARMS. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH 40 FEET. MEASURING POINT, TOP OF CASING, EAST SIDE, 0.6 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 1620. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.44 FEET BELOW LAND SURFACE DATUM MAR 28, 1980.

LOWEST WATER LEVEL 8.87 FEET BELOW LAND SURFACE DATUM JAN 23, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 5.81 ; MAR 12, 1984 5.79 ; JUN 08, 1984 3.70 ; SEP 10, 1984 5.97 .

## RILEY COUNTY

### WELL 10S 07E 34BAA 02 SITE NUMBER 390841096380802

10-7E-34BAA2. USDA SCS. DRILLED, WATER-TABLE IRRIGATION WELL IN NEWMAN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 16 INCHES, DEPTH 45 FEET. MEASURING POINT, HOLE IN PUMP BASE 2.20 FEET ABOVE LSD. MEASURED BY KSU AND KSBA.

ALTITUDE OF LAND SURFACE 1032. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.88 FEET BELOW LAND SURFACE DATUM DEC 26, 1973.

LOWEST WATER LEVEL 21.80 FEET BELOW LAND SURFACE DATUM DEC 03, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 20.25 .

### WELL 10S 07E 35DBB 01 SITE NUMBER 390815096364901

10-7E-35DBB. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN NEWMAN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 53 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 4.0 FEET ABOVE LSD. MEASURED BY KSU + KSBA.

ALTITUDE OF LAND SURFACE 1030. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 13.35 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 20.34 FEET BELOW LAND SURFACE DATUM MAR 11, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 19.05 .

### WELL 10S 08E 23CDC 01 SITE NUMBER 390938096294301

10-8E-23CDC. WILFRID JOHNSON. DRILLED, WATER-TABLE IRRIGATION WELL IN NEWMAN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 16 INCHES, DEPTH 87 FEET. MEASURING POINT, LOWER EDGE SLOPING PIPE, 1.0 FOOT ABOVE LSD. MEASURED BY KSU.

ALTITUDE OF LAND SURFACE 1013. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 19.60 FEET BELOW LAND SURFACE DATUM JUN 05, 1982.

LOWEST WATER LEVEL 31.35 FEET BELOW LAND SURFACE DATUM SEP 09, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 27.63 .

## RILEY COUNTY -- CONTINUED

### WELL 10S 09E 17BDD 01 SITE NUMBER 391055096261701

10-9E-17BDD. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 37 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD. MEASURED BY KSU + KSBA.

ALTITUDE OF LAND SURFACE 996. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 9.90 FEET BELOW LAND SURFACE DATUM JUN 20, 1974.

LOWEST WATER LEVEL 25.44 FEET BELOW LAND SURFACE DATUM MAR 14, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 18.02 ; MAR 09, 1984 18.30 ; JUN 07, 1984 16.20 ; SEP 12, 1984 15.58 .

### WELL 10S 09E 19BBA 01 SITE NUMBER 391023096274101

10-9E-19BBA. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 48 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD. MEASURED BY KSU + KSBA.

ALTITUDE OF LAND SURFACE 1001. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.65 FEET BELOW LAND SURFACE DATUM JUN 08, 1982.

LOWEST WATER LEVEL 23.38 FEET BELOW LAND SURFACE DATUM DEC 06, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 20.10 .

### WELL 11S 07E 01BCC 01 SITE NUMBER 390729096364901

11-7E-1BCC. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN BUCK CREEK TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 39 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD. MEASURED BY KSU + KSBA.

ALTITUDE OF LAND SURFACE 1035. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 13.76 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 24.1 FEET BELOW LAND SURFACE DATUM OCT 15, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 20.69 .

## ROOKS COUNTY

### WELL 07S 17W 24BBB 01 SITE NUMBER 392612099102501

7-17W-24BBB. ROY BALLARD. DRILLED, WATER-TABLE STOCK WELL IN ALLUVIUM. DEPTH 31 FEET, DIAMETER 10 INCHES. MEASURING POINT, TOP OF CASING, NORTHWEST, 0.8 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1713.99 FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.13 FEET BELOW LAND SURFACE DATUM JUN 14, 1961.

LOWEST WATER LEVEL 18.98 FEET BELOW LAND SURFACE DATUM DEC 10, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 16.71 ; MAR 01, 1984 16.18 ; JUN 05, 1984 15.23 ; SEP 10, 1984 16.93 .

### WELL 07S 19W 23CDB 01 SITE NUMBER 392533099243701

7-19W-23CDB. ZACK MCEWEN. DUG, WATER-TABLE STOCK WELL. DEPTH 22 FEET, DIAMETER 36 INCHES. MEASURING POINT, PUMP BASE, SOUTH, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1878.50 FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 13.16 FEET BELOW LAND SURFACE DATUM JUN 15, 1960.

LOWEST WATER LEVEL 19.2 FEET BELOW LAND SURFACE DATUM DEC 21, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 15, 1983 18.58 ; MAR 06, 1984 17.06 ; JUN 04, 1984 14.26 ; SEP 10, 1984 16.59 .

## RUSH COUNTY

### WELL 18S 17W 15DAA 01 SITE NUMBER 382908099105401

18-17W-15DAA. USGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM OF PLEISTOCENE AGE. DEPTH 51 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.1 FEET ABOVE LSD. MP CHANGED TO 1.9 FEET ABOVE LSD, JUNE 1970. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1959. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.66 FEET BELOW LAND SURFACE DATUM JUN 20, 1960.

LOWEST WATER LEVEL 35.15 FEET BELOW LAND SURFACE DATUM JUN 07, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1983 34.96 ; MAR 08, 1984 35.11 ; JUN 07, 1984 35.15 .

### WELL 18S 17W 23BCC 01 SITE NUMBER 382822099104601

18-17W-23BCC. USGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM OF PLEISTOCENE AGE. DEPTH 56 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.55 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1958. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.15 FEET BELOW LAND SURFACE DATUM JUN 20, 1960.

LOWEST WATER LEVEL 36.34 FEET BELOW LAND SURFACE DATUM SEP 14, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1983 36.02 ; MAR 08, 1984 36.12 ; JUN 07, 1984 35.84 ; SEP 14, 1984 36.34 .

### WELL 18S 18W 27AAC 01 SITE NUMBER 382742099174001

18-18W-27AAC. USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM OF PLEISTOCENE AGE. DEPTH 53 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.2 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1993. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 24.85 FEET BELOW LAND SURFACE DATUM SEP 21, 1970.

LOWEST WATER LEVEL 36.00 FEET BELOW LAND SURFACE DATUM JUN 07, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1983 35.47 ; MAR 08, 1984 35.58 ; JUN 07, 1984 36.00 ; SEP 14, 1984 35.95 .

### WELL 18S 19W 20ADD 01 SITE NUMBER 382821099262301

18-19W-20ADD. RUSH COUNTY. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH NOT REPORTED, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.6 FEET ABOVE LSD. MP CHANGED TO TOP OF PIPE, 1.0 FOOT ABOVE LSD, MARCH 1978. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2034.2 FEET

RECORDS AVAILABLE 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 22.04 FEET BELOW LAND SURFACE DATUM MAR 19, 1974.

LOWEST WATER LEVEL 37.02 FEET BELOW LAND SURFACE DATUM DEC 21, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1983 37.02 ; MAR 08, 1984 35.92 ; JUN 07, 1984 35.43 ; SEP 14, 1984 35.49 .

### WELL 18S 20W 14CCC 01 SITE NUMBER 382548099304201

18-20W-14CCC. USGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM OF PLEISTOCENE AGE. DEPTH 48 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.7 FEET ABOVE LSD. MEASURED BY KSBA.

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 19.97 FEET BELOW LAND SURFACE DATUM NOV 07, 1960.

LOWEST WATER LEVEL 26.85 FEET BELOW LAND SURFACE DATUM DEC 22, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1983 26.52 ; MAR 08, 1984 26.16 ; JUN 07, 1984 25.79 ; SEP 14, 1984 25.90 .

## RUSH COUNTY -- CONTINUED

### WELL 18S 20W 19AAD 01 SITE NUMBER 392835099341201

18-20W-19AAD. V. HUXOL. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM OF PLEISTOCENE AGE. DEPTH 58 FEET. MEASURING POINT, HOLE IN PUMP BASE, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2077. FEET

RECORDS AVAILABLE 1960, 1965 - 1966, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.12 FEET BELOW LAND SURFACE DATUM MAR 19, 1974.

LOWEST WATER LEVEL 35.00 FEET BELOW LAND SURFACE DATUM APR 20, 1965.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1983 31.39 ; MAR 08, 1984 31.61 ; JUN 07, 1984 29.09 ; SEP 14, 1984 30.16 .

## SALINE COUNTY

### WELL 16S 02W 18BBB 01 SITE NUMBER 383959097353101

16-2W-18BBB. USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 40 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.7 FEET ABOVE LSD.

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.05 FEET BELOW LAND SURFACE DATUM MAR 08, 1974.

LOWEST WATER LEVEL 25.60 FEET BELOW LAND SURFACE DATUM JUL 18, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 03, 1983 22.60 ; MAR 08, 1984 22.70 ; JUN 06, 1984 20.14 .

## SCOTT COUNTY

### WELL 16S 33W 19CBB 01 SITE NUMBER 383856101005901

16-33W-19CBB. ROY FAIRLEIGH. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 192 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 0.75 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3097. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 129.78 FEET BELOW LAND SURFACE DATUM DEC 12, 1960.

LOWEST WATER LEVEL 169.31 FEET BELOW LAND SURFACE DATUM DEC 10, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 161.38 ; JAN 09, 1984 160.20 ; APR 19, 1984 160.78 .

### WELL 17S 32W 27BBB 01 SITE NUMBER 383316100505801

17-32W-27BBB. O. C. BEBERMEYER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 185 FEET, DIAMETER 16 INCHES, MEASURING POINT, HOLE NORTH OF PUMP BASE, AT LAND SURFACE. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2990. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 106.25 FEET BELOW LAND SURFACE DATUM APR 25, 1966.

LOWEST WATER LEVEL 153.10 FEET BELOW LAND SURFACE DATUM JAN 10, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 10, 1984 153.10 ; APR 06, 1984 151.57 ; JUL 12, 1984 151.91 .

SCOTT COUNTY -- CONTINUED

WELL 17S 34W 06BCB 01 SITE NUMBER 383633101073401

17-34W-6BCB. E. C. THOREN. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 196 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, WEST, 0.75 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3163. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 118.55 FEET BELOW LAND SURFACE DATUM MAR 29, 1966.

LOWEST WATER LEVEL 150.01 FEET BELOW LAND SURFACE DATUM OCT 06, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 148.88 ; JAN 09, 1984 146.09 R.

WELL 18S 32W 17ABA 02 SITE NUMBER 382947100522902

18-32W-17ABA2. ED PITTMAN. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 135 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, SOUTH, 2.5 FEET ABOVE LSD. REPLACEMENT WELL FOR 18-32W-17ABA.

ALTITUDE OF LAND SURFACE 2973. FEET

RECORDS AVAILABLE 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 112.00 FEET BELOW LAND SURFACE DATUM JAN 22, 1981.

LOWEST WATER LEVEL 116.61 FEET BELOW LAND SURFACE DATUM OCT 15, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 10, 1984 114.90 .

WELL 18S 33W 05CCC 01 SITE NUMBER 383046100594901

18-33W-5CCC. N. C. BUEHLER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 119 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTH SIDE PUMP BASE, 0.3 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3041. FEET

RECORDS AVAILABLE 1944, 1951, 1961, 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 75.15 FEET BELOW LAND SURFACE DATUM JUN 16, 1944.

LOWEST WATER LEVEL 106.84 FEET BELOW LAND SURFACE DATUM OCT 06, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 105.54 ; JAN 09, 1984 99.06 ; APR 19, 1984 100.14 .

WELL 18S 33W 26DAD 02 SITE NUMBER 382730100553102

18-33W-26DAD2. USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN QUATERNARY UNDIFFERENTIATED AND OGALLALA FORMATION. DEPTH 195 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET, ABOVE LSD. REPLACEMENT WELL FOR 18-33W-26DAD.

ALTITUDE OF LAND SURFACE 2952. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.29 FEET BELOW LAND SURFACE DATUM OCT 07, 1982.

LOWEST WATER LEVEL 77.80 FEET BELOW LAND SURFACE DATUM JAN 10, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 07, 1983 73.06 ; JAN 10, 1984 77.80 ; APR 24, 1984 76.57 ; JUL 27, 1984 76.03 .

WELL 18S 34W 25BBD 01 SITE NUMBER 382756101015201

18-34W-25BBD. CLAUDE HUGHES. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 142 FEET, DIAMETER 18 INCHES. MEASURING POINT, 1.3 FEET ABOVE LSD. MP CHANGED TO 0.2 FOOT ABOVE LSD, NOVEMBER, 1942. MP CHANGED TO HOLE IN PUMP BASE, WEST, AT LAND SURFACE, APRIL 1951. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3092. FEET

RECORDS AVAILABLE 1940 - 1947, 1951 - 1952, 1956, 1961, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 87.82 FEET BELOW LAND SURFACE DATUM APR 29, 1942.

LOWEST WATER LEVEL 120.61 FEET BELOW LAND SURFACE DATUM OCT 07, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 07, 1983 120.61 ; JAN 09, 1984 112.58 ; APR 24, 1984 112.83 .

## SCOTT COUNTY -- CONTINUED

### WELL 19S 32W 06CCB 01 SITE NUMBER 382539100541601

19-32W-6CCB. B. G. WITHAM. DRILLED, WATER-TABLE OBSERVATION WELL IN QUATERNARY UNDIFFERENTIATED AND OGALLALA FORMATION. DEPTH 115 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF PLATFORM, 2.65 FEET ABOVE LSD. MP CHANGED TO TOP OF WELL CASING, 1.42 FEET ABOVE LSD, NOVEMBER 7, 1972.

ALTITUDE OF LAND SURFACE 2937. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 37.56 FEET BELOW LAND SURFACE DATUM JUN 10, 1973.

LOWEST WATER LEVEL 69.43 FEET BELOW LAND SURFACE DATUM JAN 09, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 01, 1983 | 68.58 | JAN 01, 1984 | 66.59 | APR 01, 1984 | 67.46 | JUL 01, 1984 | 66.56 |
| 07 | 68.78 | 09 | 69.43 | 24 | 68.60 | 27 | 68.18 |
| NOV 01 | 66.31 | FEB 01 | 67.54 | MAY 01 | 67.11 | AUG 01 | 66.96 |
| DEC 01 | 66.56 | MAR 01 | 67.32 | JUN 01 | 66.70 | SEP 01 | 67.96 |

### WELL 19S 32W 32ACB 01 SITE NUMBER 382144100523501

19-32W-32ACB. A. A. ALLEN. DRILLED, WATER-TABLE IRRIGATION WELL IN QUATERNARY UNDIFFERENTIATED AND OGALLALA FORMATION. DEPTH 210 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, NORTHWEST, AT LAND SURFACE. REPLACEMENT WELL FOR 19-32W-23DCC.

ALTITUDE OF LAND SURFACE 2984. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 77.03 FEET BELOW LAND SURFACE DATUM JAN 11, 1973.

LOWEST WATER LEVEL 88.29 FEET BELOW LAND SURFACE DATUM JUL 07, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 86.30 ; APR 06, 1984 84.72 ; JUL 12, 1984 86.14 .

### WELL 19S 33W 15DBD 01 SITE NUMBER 382401100565301

19-33W-15DBD. OTTO GEESEKA. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 132 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 1.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2964. FEET

RECORDS AVAILABLE 1936, 1940 - 1947, 1951, 1956, 1961, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 45.60 FEET BELOW LAND SURFACE DATUM AUG 01, 1936.

LOWEST WATER LEVEL 114.62 FEET BELOW LAND SURFACE DATUM APR 24, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 07, 1983 111.71 ; JAN 10, 1984 108.55 ; APR 24, 1984 114.62 ; JUL 27, 1984 113.51 .

### WELL 19S 33W 29CBB 02 SITE NUMBER 382223100594602

19-33W-29CBB2. SAMUEL BONTRAGER. DRILLED, WATER-TABLE IRRIGATION WELL IN QUATERNARY UNDIFFERENTIATED AND OGALLALA FORMATION. DEPTH NOT REPORTED, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CASING, 0.3 FOOT ABOVE LSD. REPLACEMENT WELL FOR 19-33W-29CBB.

ALTITUDE OF LAND SURFACE 2994. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 113.23 FEET BELOW LAND SURFACE DATUM JAN 21, 1974.

LOWEST WATER LEVEL 126.39 FEET BELOW LAND SURFACE DATUM JUN 21, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 07, 1983 122.12 ; JAN 09, 1984 124.30 .

SCOTT COUNTY -- CONTINUED

WELL 20S 33W 09BBB 01 SITE NUMBER 382013100583901

20-33W-9BBB. R. K. PETRO. DRILLED, UNUSED, WATER-TABLE WELL IN OGALLALA FORMATION. DEPTH 128 FEET, DIAMETER 24 INCHES. MEASURING POINT, TOP OF CONCRETE BASE, 0.1 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2973. FEET

RECORDS AVAILABLE 1931 TO CURRENT YEAR.

HIGHEST WATER LEVEL 55.92 FEET BELOW LAND SURFACE DATUM JUN 05, 1932.

LOWEST WATER LEVEL WELL DRY OCT 06, 1955; NOV 07, 1955; JAN 12, 1956; FEB 09, 1956; MAR 22, 1956; NOV 19, 1956; DEC 17, 1956.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 01, 1983 | 98.66 | JAN 01, 1984 | 98.78 | APR 01, 1984 | 99.19 | JUL 01, 1984 | 99.36 |
| 07 | 98.75 | 09 | 98.95 | 24 | 99.44 | 27 | 99.14 |
| NOV 01 | 98.65 | FEB 01 | 99.04 | MAY 01 | 99.35 | AUG 01 | 99.06 |
| DEC 01 | 98.68 | MAR 01 | 99.11 | JUN 01 | 99.38 | SEP 01 | 99.09 |

WELL 20S 33W 21ABD 01 SITE NUMBER 381822100575701

20-33W-21ABD. MARION HUTCHINS. DRILLED, WATER-TABLE IRRIGATION WELL IN QUATERNARY UNDIFFERENTIATED AND OGALLALA FORMATION. DEPTH 154 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, EAST, 0.2 FOOT ABOVE LSD. MP CHANGED TO 0.3 FOOT ABOVE LSD, APRIL 1976. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2957. FEET

RECORDS AVAILABLE 1944, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 47.07 FEET BELOW LAND SURFACE DATUM JUN 15, 1944.

LOWEST WATER LEVEL 130.54 FEET BELOW LAND SURFACE DATUM APR 21, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 07, 1983 128.62 ; APR 24, 1984 129.21 ; JUL 27, 1984 130.03 .

SEDGWICK COUNTY

WELL 25S 01W 26DBD C1 SITE NUMBER 375039097234201

25-1W-26DBD. (12) DR. A. D. UPDEGRAPH. DRILLED, UNUSED WATER-TABLE OBSERVATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 54 FEET, DIAMETER 24 INCHES. MEASURING POINT, STEEL PLATE ON INSTRUMENT SHELF, 2.99 FEET ABOVE LSD. MP CHANGED TO TOP OF CASING, AT LAND SURFACE, MAY 1967.

ALTITUDE OF LAND SURFACE 1351.95 FEET

RECORDS AVAILABLE 1937 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.05 FEET BELOW LAND SURFACE DATUM JUL 25, 1951.

LOWEST WATER LEVEL 22.60 FEET BELOW LAND SURFACE DATUM NOV 22, 1952.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 01, 1983 | 19.30 | JAN 01, 1984 | 19.69 | APR 20, 1984 | 17.73 | AUG 20, 1984 | 18.76 |
| 19 | 19.46 | 20 | 19.73 | MAY 21 | 17.36 | SEP 20 | 19.18 |
| NOV 21 | 19.70 | FEB 21 | 19.86 | JUN 20 | 17.93 | | |
| DEC 20 | 19.69 | MAR 03 | 19.20 | JUL 19 | 19.37 | | |

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## SEDGWICK COUNTY -- CONTINUED

### WELL 26S 01W 19ABA 01 SITE NUMBER 374659097280201

26-1W-19ABA. (805) CITY OF WICHITA. DRIVEN, WATER-TABLE OBSERVATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 36 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.3 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1351.7 FEET

RECORDS AVAILABLE 1936 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.57 FEET BELOW LAND SURFACE DATUM APR 01, 1980.

LOWEST WATER LEVEL 9.89 FEET BELOW LAND SURFACE DATUM SEP 30, 1965.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 01, 1983 | 8.55 | JAN 01, 1984 | 8.13 | APR 01, 1984 | 5.55 | JUL 01, 1984 | 6.73 |
| DEC 08 | 8.15 | MAR 13 | 7.[illegible] | JUN 08 | 6.55 | SEP 12 | 8.75 |

### WELL 26S 01W 31CCC 01 SITE NUMBER 374428097284301

26-1W-31CCC. KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 42 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.52 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1360.4 FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 19.88 FEET BELOW LAND SURFACE DATUM DEC 13, 1961.

LOWEST WATER LEVEL 27.59 FEET BELOW LAND SURFACE DATUM DEC 15, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 26.71 ; MAR 13, 1984 26.56 ; JUN 08, 1984 25.65 .

### WELL 26S 01W 31CCC 02 SITE NUMBER 374428097284302

26-1W-31CCC2. KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 159 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.53 FEET ABOVE LSD. MEASURED BY KSBA.

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 20.46 FEET BELOW LAND SURFACE DATUM DEC 15, 1961.

LOWEST WATER LEVEL 28.38 FEET BELOW LAND SURFACE DATUM SEP 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 27.07 ; MAR 13, 1984 26.93 ; JUN 08, 1984 26.05 ; SEP 12, 1984 27.41 .

### WELL 26S 02W 02DDD 01 SITE NUMBER 374843097295801

26-1W-2DDD. KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 27 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.48 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1368.2 FEET

RECORDS AVAILABLE 1960 - 1967, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.96 FEET BELOW LAND SURFACE DATUM MAR 16, 1973.

LOWEST WATER LEVEL 9.90 FEET BELOW LAND SURFACE DATUM SEP 17, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 7.71 ; MAR 13, 1984 7.49 ; JUN 08, 1984 5.50 .

### WELL 26S 02W 02DDD 02 SITE NUMBER 374843097295802

26-1W-2DDD2. KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 187 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.48 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1368.2 FEET

RECORDS AVAILABLE 1960 - 1967, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.65 FEET BELOW LAND SURFACE DATUM MAR 27, 1980.

LOWEST WATER LEVEL 11.62 FEET BELOW LAND SURFACE DATUM SEP 21, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 9.55 ; MAR 13, 1984 9.63 ; JUN 08, 1984 8.95 ; SEP 12, 1984 10.63 .

SEDGWICK COUNTY -- CONTINUED

WELL 26S 02W 07AAA 01 SITE NUMBER 374837097342001

26-2W-7AAA. KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 62 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.33 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1388.2 FEET

RECORDS AVAILABLE 1960 - 1963, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.36 FEET BELOW LAND SURFACE DATUM AUG 22, 1963.

LOWEST WATER LEVEL 16.57 FEET BELOW LAND SURFACE DATUM SEP 12, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 15.55 ; MAR 13, 1984 15.04 ; JUN 08, 1984 13.44 .

WELL 26S 02W 07AAA 02 SITE NUMBER 374837097342002

26-2W-7AAA2. KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 189 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.54 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1388.2 FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.63 FEET BELOW LAND SURFACE DATUM APR 23, 1963.

LOWEST WATER LEVEL 18.00 FEET BELOW LAND SURFACE DATUM SEP 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 15.36 ; MAR 13, 1984 14.86 ; JUN 08, 1984 13.40 ; SEP 12, 1984 18.00 .

WELL 26S 02W 10BBB 01 SITE NUMBER 374837097320101

26-2W-10BBB. (807) CITY OF WICHITA. DRIVEN, WATER-TABLE OBSERVATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 37 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 1392. FEET

RECORDS AVAILABLE 1938 TO CURRENT YEAR.

HIGHEST WATER LEVEL 18.09 FEET BELOW LAND SURFACE DATUM OCT 03, 1951.

LOWEST WATER LEVEL 29.50 FEET BELOW LAND SURFACE DATUM SEP 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 01, 1983 | 28.50 | JAN 01, 1984 | 27.91 | APR 01, 1984 | 27.47 | JUL 01, 1984 | 26.25 |
| DEC 08 | 28.32 | MAR 13 | 27.67 | JUN 08 | 26.23 | | |

WELL 26S 02W 10DAA 01 SITE NUMBER 374811097310301

26-2W-10DAA. KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 126 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.48 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1380. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.58 FEET BELOW LAND SURFACE DATUM MAY 15, 1961.

LOWEST WATER LEVEL 22.30 FEET BELOW LAND SURFACE DATUM SEP 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 21.42 ; MAR 13, 1984 21.35 ; JUN 08, 1984 20.21 ; SEP 12, 1984 20.91 .

SEDGWICK COUNTY -- CONTINUED

WELL 26S 02W 14BAA 01    SITE NUMBER 374744097303001

26-2W-14BAA. KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 175 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1374. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.97 FEET BELOW LAND SURFACE DATUM JAN 25, 1966.

LOWEST WATER LEVEL 23.37 FEET BELOW LAND SURFACE DATUM SEP 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 21.32 ; MAR 13, 1984 20.69 ; JUN 08, 1984 19.17 .

WELL 26S 02W 14DDD 01    SITE NUMBER 374658097295701

26-2W-14DDD. KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 43 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.48 FEET ABOVE LSD. MEASURED BY KSBA.

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.23 FEET BELOW LAND SURFACE DATUM MAY 15, 1961.

LOWEST WATER LEVEL 21.05 FEET BELOW LAND SURFACE DATUM SEP 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 19.28 ; MAR 13, 1984 18.61 ; JUN 08, 1984 16.89 ; SEP 12, 1984 19.22 .

WELL 26S 02W 15CBC 01    SITE NUMBER 374712097320001

26-2W-15CBC. MISSOURI PACIFIC RAILROAD. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 63 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.83 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1379.8 FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.27 FEET BELOW LAND SURFACE DATUM MAY 26, 1961.

LOWEST WATER LEVEL 25.37 FEET BELOW LAND SURFACE DATUM SEP 08, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 23.36 ; MAR 13, 1984 22.58 ; JUN 08, 1984 21.48 .

WELL 26S 02W 15DBB 01    SITE NUMBER 374718097312801

26-2W-15DBB. KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 101 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF PIPE, 2.27 FEET ABOVE LSD. MP CHANGED TO 2.0 FEET ABOVE LSD, APRIL 1984. MEASURED BY KSBA.

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 13.37 FEET BELOW LAND SURFACE DATUM MAY 15, 1961.

LOWEST WATER LEVEL 26.30 FEET BELOW LAND SURFACE DATUM SEP 08, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 23.28 ; MAR 13, 1984 22.64 ; JUN 08, 1984 21.35 ; SEP 12, 1984 23.25 .

WELL 26S 02W 22ABA 01    SITE NUMBER 374652097311901

26-2W-22ABA. AL STOLTZ. DRILLED, WATER-TABLE IRRIGATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 42 FEET, DIAMETER 6 INCHES. MEASURING POINT, BOTTOM INSIDE LIP OF ELBOW, 1.25 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1360. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.58 FEET BELOW LAND SURFACE DATUM DEC 19, 1960.

LOWEST WATER LEVEL 17.73 FEET BELOW LAND SURFACE DATUM SEP 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 14.02 ; MAR 13, 1984 13.14 ; JUN 08, 1984 11.79 .

SEDGWICK COUNTY -- CONTINUED

WELL 26S 02W 23CCC 01 SITE NUMBER 374606097305501

26-2W-23CCC, KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 43 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.52 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1363.6 FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.77 FEET BELOW LAND SURFACE DATUM DEC 18, 1961.

LOWEST WATER LEVEL 18.85 FEET BELOW LAND SURFACE DATUM SEP 08, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 16.64 ; MAR 13, 1984 15.86 ; JUN 08, 1984 14.36 ; SEP 12, 1984 16.78 .

WELL 26S 02W 24DDD 01 SITE NUMBER 374606097285101

26-2W-24DDD. KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 42 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.48 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1366.1 FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.78 FEET BELOW LAND SURFACE DATUM DEC 18, 1961.

LOWEST WATER LEVEL 25.52 FEET BELOW LAND SURFACE DATUM SEP 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 24.12 ; MAR 13, 1984 23.88 ; JUN 08, 1984 23.51 .

WELL 26S 02W 29AAA 01 SITE NUMBER 374600097331401

26-2W-29AAA. KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 50 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.59 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1384. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.74 FEET BELOW LAND SURFACE DATUM OCT 20, 1960.

LOWEST WATER LEVEL 28.21 FEET BELOW LAND SURFACE DATUM SEP 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 27.53 ; MAR 13, 1984 26.98 ; JUN 08, 1984 26.14 ; SEP 12, 1984 28.21 .

WELL 28S 01W 11BCB 01 SITE NUMBER 373802097241801

28-1W-11BCB. KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 83 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF PIPE, 1.18 FEET ABOVE LSD. MEASURED BY KSBA.

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.75 FEET BELOW LAND SURFACE DATUM NOV 20, 1964.

LOWEST WATER LEVEL 20.17 FEET BELOW LAND SURFACE DATUM SEP 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 15.99 ; MAR 13, 1984 16.07 ; JUN 11, 1984 14.80 ; SEP 12, 1984 17.45 .

WELL 28S 01W 11CCD 01 SITE NUMBER 373730097235301

28-1W-11CCD. KG+E. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 80 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF PIPE, 1.15 FEET ABOVE LSD. MEASURED BY KSBA.

RECORDS AVAILABLE 1964 - 1977, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.3 FEET BELOW LAND SURFACE DATUM NOV 20, 1964.

LOWEST WATER LEVEL 19.91 FEET BELOW LAND SURFACE DATUM SEP 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 12.87 ; JUN 11, 1984 13.02 .

SEDGWICK COUNTY -- CONTINUED

WELL 28S 01W 15ACA 02 SITE NUMBER 373710097244202

28-1W-15ACA2. FLOYD HINCKLEY. DRILLED, WATER-TABLE DOMESTIC WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 62 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF CASING, 0.4 FOOT ABOVE LSD. REPLACEMENT WELL FOR 28-1W-15ACA, JUNE 1979.

RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.81 FEET BELOW LAND SURFACE DATUM DEC 08, 1983.

LOWEST WATER LEVEL 35.70 FEET BELOW LAND SURFACE DATUM SEP 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 14.81 ; MAR 13, 1984 33.76 ; JUN 11, 1984 32.70 ; SEP 12, 1984 33.89

SEWARD COUNTY

WELL 31S 31W 08BCC C1 SITE NUMBER 372159100432201

31-31W-8BCC. J. A. FLEMING. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 400 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, NORTHWEST, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2829. FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 167.55 FEET BELOW LAND SURFACE DATUM JUN 12, 1962.

LOWEST WATER LEVEL 220.47 FEET BELOW LAND SURFACE DATUM APR 28, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 13, 1984 215.50 ; APR 12, 1984 216.31 .

WELL 32S 32W 14BBB 01 SITE NUMBER 371615100463701

32-32W-14BBB. FRANK E. DUFIELD. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 420 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTHWEST CORNER OF PUMP BASE, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2830. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 182.33 FEET BELOW LAND SURFACE DATUM DEC 11, 1964.

LOWEST WATER LEVEL 235.74 FEET BELOW LAND SURFACE DATUM OCT 26, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 26, 1983 235.74 ; JAN 13, 1984 221.96 ; APR 12, 1984 221.91 .

WELL 32S 33W 21CDB 01 SITE NUMBER 371444100550101

32-33W-21CDB. (15) CABOT CARBON CO. DRILLED, WATER-TABLE DOMESTIC AND STOCK WELL IN ALLUVIUM. DIAMETER 5 INCHES, DEPTH 53 FEET. MEASURING POINT, TOP OF HOLE IN STEEL DISK, 0.20 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2697. FEET

RECORDS AVAILABLE 1940 - 1965, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.76 FEET BELOW LAND SURFACE DATUM AUG 20, 1942.

LOWEST WATER LEVEL 22.88 FEET BELOW LAND SURFACE DATUM APR 28, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 26, 1983 20.34 ; JAN 11, 1984 20.41 ; APR 12, 1984 20.83 ; JUL 25, 1984 20.31 .

SEWARD COUNTY -- CONTINUED

WELL 34S 33W 07CCB 01 SITE NUMBER 370602100572601

34-33W-7CCB. KENNETH METCALF. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 360 FEET, DIAMTER 24 INCHES. MEASURING POINT, TOP SOUTH EDGE OF CASING, 2.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2901. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 126.46 FEET BELOW LAND SURFACE DATUM MAR 05, 1975.

LOWEST WATER LEVEL 135.33 FEET BELOW LAND SURFACE DATUM JUL 25, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 26, 1983 134.63 ; JAN 12, 1984 135.08 ; APR 12, 1984 135.00 ; JUL 25, 1984 135.33 .

WELL 35S 34W 10BBB 01 SITE NUMBER 370128101004001

35-34W-10BBB. JOHN GROVER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 352 FEET, DIAMETER 16 INCHES. MEASURING POINT, BOTTOM NORTH SIDE OF PUMP, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2912. FEET

RECORDS AVAILABLE 1954, 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 66.94 FEET BELOW LAND SURFACE DATUM MAR 07, 1978.

LOWEST WATER LEVEL 97.51 FEET BELOW LAND SURFACE DATUM JUL 25, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 12, 1984 75.47 ; APR 12, 1984 77.51 .

SHAWNEE COUNTY

WELL 11S 12E 01ABA 01 SITE NUMBER 390744096013401

11-12E-1ABA. KGS. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 39 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 926. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.63 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 16.18 FEET BELOW LAND SURFACE DATUM MAR 31, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 14.53 ; MAR 05, 1984 13.75 ; JUN 08, 1984 9.48 ; SEP 10, 1984 13.25 .

WELL 11S 13E 04ADA 01 SITE NUMBER 390731095575801

11-13E-4ADA. BERNIECE FRENCH. DRIVEN, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH NOT REPORTED. DIAMETER 1.5 INCHES. MEASURING POINT, TOP OF PIPE, 1.8 FEET ABOVE LSD.

RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.12 FEET BELOW LAND SURFACE DATUM JUN 08, 1984.

LOWEST WATER LEVEL 23.35 FEET BELOW LAND SURFACE DATUM MAR 09, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 21.07 ; MAR 05, 1984 20.73 ; JUN 08, 1984 17.12 ; SEP 10, 1984 20.95 .

WELL 11S 14E 13BBB 01 SITE NUMBER 390559095485301

11-14E-13BBB. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN NEWMAN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 48 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 903.6 FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.60 FEET BELOW LAND SURFACE DATUM JUL 29, 1969.

LOWEST WATER LEVEL 21.58 FEET BELOW LAND SURFACE DATUM DEC 10, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 15.60 ; MAR 05, 1984 16.60 ; JUN 08, 1984 13.05 ; SEP 10, 1984 15.74 .

SHAWNEE COUNTY -- CONTINUED

WELL 11S 14E 15ABB 01 SITE NUMBER 390559095503301

11-14E-15ABB. HERRING. BORED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM AND DEPOSITS OF PLEISTOCENE AGE. DEPTH 50 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.8 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 908. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.20 FEET BELOW LAND SURFACE DATUM JUN 10, 1983.

LOWEST WATER LEVEL 23.20 FEET BELOW LAND SURFACE DATUM FEB 24, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 18.38 ; MAR 05, 1984 18.92 ; JUN 08, 1984 15.02 ; SEP 10, 1984 18.00 .

WELL 11S 14E 18CBB 01 SITE NUMBER 390534095542901

11-14E-18CBB. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 44 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 4.0 FEET ABOVE LSD. MP CHANGED TO 3.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 908. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.94 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 17.76 FEET BELOW LAND SURFACE DATUM MAR 09, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 14.86 ; MAR 05, 1984 14.37 ; JUN 08, 1984 11.00 ; SEP 10, 1984 14.10 .

WELL 11S 14E 22CCC 01 SITE NUMBER 390421095510601

11-14E-22CCC. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 66 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 4.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 897. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.50 FEET BELOW LAND SURFACE DATUM JUN 14, 1982.

LOWEST WATER LEVEL 16.70 FEET BELOW LAND SURFACE DATUM MAR 09, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 11.95 ; MAR 05, 1984 11.75 ; JUN 08, 1984 11.30 ; SEP 10, 1984 10.53 .

WELL 11S 14E 24BBB 01 SITE NUMBER 390507095485301

11-14E-24BBB. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 38 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 897.8 FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.75 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 17.70 FEET BELOW LAND SURFACE DATUM SEP 10, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 11.65 .

WELL 11S 15E 13DBC 01 SITE NUMBER 390525095414301

11-15E-13DBC. GOODYEAR TIRE CO. DRILLED, WATER-TABLE OBSERVATION WELL IN NEWMAN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 77 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF 2-INCH COUPLING, 1.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 855.7 FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.35 FEET BELOW LAND SURFACE DATUM JUN 10, 1983.

LOWEST WATER LEVEL 38.16 FEET BELOW LAND SURFACE DATUM JUN 02, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 27.85 ; MAR 05, 1984 28.42 ; JUN 08, 1984 27.50 ; SEP 10, 1984 30.00 .

SHAWNEE COUNTY -- CONTINUED

WELL 11S 15E 14ADB 01 SITE NUMBER 390545095423201

11-15E-14ADB. HOWARD JACKSON. DRILLED, WATER-TABLE IRRIGATION WELL IN NEWMAN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 58 FEET, DIAMETER 24 INCHES. MEASURING POINT, 1/2-INCH HOLE IN FLOOR OF PUMP, NORTH, AT LAND SURFACE. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 996.7 FEET

RECORDS AVAILABLE 1933, 1957, 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 29.30 FEET BELOW LAND SURFACE DATUM DEC 16, 1933.

LOWEST WATER LEVEL 37.42 FEET BELOW LAND SURFACE DATUM DEC 29, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 32.00 .

WELL 11S 15E 16DCA 01 SITE NUMBER 390519095445301

11-15E-16DCA. (16C) KSBA. DRILLED, WATER-TABLE OBSERVATION WELL IN NEWMAN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 38 FEET, DIAMETER 15 INCHES. MEASURING POINT, TOP OF CASING, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 899.3 FEET

RECORDS AVAILABLE 1950 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.93 FEET BELOW LAND SURFACE DATUM JUL 15, 1951.

LOWEST WATER LEVEL 34.68 FEET BELOW LAND SURFACE DATUM SEP 15, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 01, 1983 | 25.37 | JAN 01, 1984 | 25.15 | APR 01, 1984 | 24.65 | JUL 01, 1984 | 22.37 |
| NOV 01 | 25.83 | FEB 01 | 25.45 | MAY 01 | 22.82 | AUG 01 | 23.06 |
| DEC 01 | 25.81 | MAR 01 | 25.63 | JUN 01 | 22.58 | SEP 01 | 24.20 |
| 05 | 25.60 | 05 | 26.44 | 08 | 23.30 | 10 | 25.24 |

WELL 11S 15E 23DBD 02 SITE NUMBER 390433095424002

11-15E-23DBD2. J. G. MEIER. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DEPTH 52 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP, 1.6 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 888.6 FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 20.40 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 28.65 FEET BELOW LAND SURFACE DATUM JUN 02, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 24.60 ; MAR 05, 1984 24.92 ; JUN 08, 1984 22.85 ; SEP 10, 1984 23.92 .

WELL 11S 15E 24DBD 01 SITE NUMBER 390433095413401

11-15E-24DBD. KGS. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 32 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.2 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 880.5 FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.40 FEET BELOW LAND SURFACE DATUM APR 04, 1960.

LOWEST WATER LEVEL 23.32 FEET BELOW LAND SURFACE DATUM DEC 09, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 19.87 .

## SHAWNEE COUNTY -- CONTINUED

WELL 11S 16E 19DDD 01 SITE NUMBER 390420095401101

11-16E-19DDD. GIBSON BROS. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 50 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.8 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 984.2 FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 20.70 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 28.94 FEET BELOW LAND SURFACE DATUM JUN 13, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 24.57 .

WELL 11S 16E 29ACA 01 SITE NUMBER 390400095392101

11-16E-29ACA. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 52 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 880. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.80 FEET BELOW LAND SURFACE DATUM DEC 26, 1973.

LOWEST WATER LEVEL 25.84 FEET BELOW LAND SURFACE DATUM DEC 05, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 05, 1983 23.15 ; MAR 05, 1984 22.70 ; JUN 05, 1984 17.73 ; SEP 10, 1984 21.00 .

## SHERIDAN COUNTY

WELL 06S 30W 13BAA C1 SITE NUMBER 393216100371301

6-30W-13BAA. JAMES EATHERLY. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 219 FEET. MEASURING POINT, PIPE, SOUTHWEST SIDE, 2.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2975. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 122.97 FEET BELOW LAND SURFACE DATUM MAR 18, 1975.

LOWEST WATER LEVEL 135.76 FEET BELOW LAND SURFACE DATUM SEP 15, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 04, 1984 129.82 ; APR 11, 1984 126.89 ; JUN 04, 1984 126.48 .

WELL 07S 26W 19BBC 01 SITE NUMBER 392604100162101

7-26W-19BBC. LLOYD E. MILLS. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 203 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP BASE, SOUTHEAST, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2625.00 FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 118.78 FEET BELOW LAND SURFACE DATUM JUN 17, 1975.

LOWEST WATER LEVEL 131.45 FEET BELOW LAND SURFACE DATUM JUN 08, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 04, 1984 124.78 ; APR 11, 1984 123.72 ; JUN 04, 1984 122.65 ; SEP 11, 1984 126.76 .

WELL 07S 28W 08BDC 01 SITE NUMBER 392735100282501

7-28W-8BDC. USGS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 288 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF CASING, 1.8 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2808. FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 139.95 FEET BELOW LAND SURFACE DATUM OCT 01, 1968.

LOWEST WATER LEVEL 166.19 FEET BELOW LAND SURFACE DATUM SEP 11, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JUN 04, 1984 163.30 ; SEP 11, 1984 166.19 .

SHERIDAN COUNTY -- CONTINUED

WELL 07S 29W 27CCC 01 SITE NUMBER 392433100330201

7-29W-27CCC. OWNER UNKNOWN. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 267 FEET. MEASURING POINT, HOLE IN PUMP BASE, SOUTHWEST, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2869.00 FEET

RECORDS AVAILABLE 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 159.39 FEET BELOW LAND SURFACE DATUM JUN 07, 1976.

LOWEST WATER LEVEL 193.41 FEET BELOW LAND SURFACE DATUM SEP 15, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 04, 1984 179.71 ; JUN 05, 1984 177.24 .

WELL 08S 30W 13DAA 01 SITE NUMBER 392124100364001

8-30W-13DAA. USGS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 234 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF CASING, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2891. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 109.07 FEET BELOW LAND SURFACE DATUM NOV 02, 1964.

LOWEST WATER LEVEL 147.62 FEET BELOW LAND SURFACE DATUM SEP 19, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 03, 1984 144.05 ; APR 11, 1984 143.54 ; JUN 05, 1984 141.40 ; SEP 11, 1984 145.92 .

WELL 09S 30W 35BBB 01 SITE NUMBER 391401100384601

9-30W-35BBB. A. G. BAALMAN. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 220 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP BASE, WEST, 0.5 FOOT ABOVE LSD. MP CHANGED TO 0.3 FOOT ABOVE LSD. JANUARY 1973. MP CHANGED TO 0.5 FOOT ABOVE LSD, SEPTEMBER 1983. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2943.9 FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 121.84 FEET BELOW LAND SURFACE DATUM APR 11, 1963.

LOWEST WATER LEVEL 153.99 FEET BELOW LAND SURFACE DATUM DEC 07, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 03, 1984 147.53 ; JUN 05, 1984 143.99 ; SEP 11, 1984 153.37 .

WELL 10S 30W 08DDD 01 SITE NUMBER 391131100410801

10-30W-8DDD. USGS. DRILLED, UNUSED, WATER-TABLE WELL IN OGALLALA FORMATION. DEPTH 184 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2930. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 92.50 FEET BELOW LAND SURFACE DATUM MAR 08, 1966.

LOWEST WATER LEVEL 105.69 FEET BELOW LAND SURFACE DATUM SEP 15, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 03, 1984 100.84 ; APR 11, 1984 99.16 ; JUN 05, 1984 98.63 ; SEP 11, 1984 101.38 .

### WELL 06S 42W 02AAA 01 SITE NUMBER 393403101575901

6-42W-2AAA. H. J. STEWART. DRILLED, UNUSED, WATER-TABLE WELL IN THE OGALLALA FORMATION. DEPTH 225, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, 0.7 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3777. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 180.10 FEET BELOW LAND SURFACE DATUM JUL 12, 1961.

LOWEST WATER LEVEL 208.79 FEET BELOW LAND SURFACE DATUM SEP 13, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 11, 1984 196.28 ; APR 10, 1984 195.69 ; JUN 04, 1984 199.30 ; SEP 13, 1984 208.79 .

### WELL 07S 37W 04BBC 01 SITE NUMBER 392843101274601

7-37W-4BBC. BERNIE BAIRD. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 275 FEET. MEASURING POINT, HOLE IN PUMP BASE, SOUTHWEST SIDE, 0.3 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3455. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 131.92 FEET BELOW LAND SURFACE DATUM JUN 25, 1975.

LOWEST WATER LEVEL 144.02 FEET BELOW LAND SURFACE DATUM JUN 06, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 23, 1984 136.92 ; JUN 05, 1984 136.34 ; SEP 12, 1984 139.03 .

### WELL 07S 40W 36BAB 01 SITE NUMBER 392429101441801

7-40W-36BAB. USGS. DRILLED, WATER-TABLE WELL IN OGALLALA FORMATION. DEPTH 321 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD. MP CHANGED TO 0.45 FOOT ABOVE LSD, SEPTEMBER 1983. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3643. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 108.71 FEET BELOW LAND SURFACE DATUM MAR 07, 1966.

LOWEST WATER LEVEL 139.60 FEET BELOW LAND SURFACE DATUM SEP 15, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 10, 1984 133.60 ; APR 10, 1984 130.01 ; JUN 04, 1984 129.98 ; SEP 13, 1984 137.48 .

### WELL 08S 39W 15CCC 01 SITE NUMBER 392107101400701

8-39W-15CCC. THOMAS CEBULA. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 269 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 1.3 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3642. FEET

RECORDS AVAILABLE 1949, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 126.48 FEET BELOW LAND SURFACE DATUM AUG 04, 1949.

LOWEST WATER LEVEL 177.58 FEET BELOW LAND SURFACE DATUM SEP 15, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 23, 1984 163.54 ; APR 10, 1984 163.06 ; JUN 04, 1984 163.52 ; SEP 12, 1984 169.14 .

### WELL 08S 40W 12DBA 01 SITE NUMBER 392218101435301

8-40W-12DBA. M. G. HEVNER. DRILLED, UNUSED, WATER-TABLE WELL IN THE OGALLALA FORMATION. DEPTH 247 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN RECORDER FLOOR, 0.6 FOOT ABOVE LSD. MP CHANGED TO 1.0 FOOT ABOVE LSD, SEPTEMBER 1983.

ALTITUDE OF LAND SURFACE 3670. FEET

RECORDS AVAILABLE 1965 - 1974, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 132.96 FEET BELOW LAND SURFACE DATUM APR 10, 1966.

LOWEST WATER LEVEL 175.55 FEET BELOW LAND SURFACE DATUM SEP 15, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 23, 1984 166.00 ; APR 10, 1984 166.20 ; JUN 04, 1984 163.90 ; SEP 13, 1984 168.01 .

## SHERMAN COUNTY -- CONTINUED

### WELL 08S 40W 20CCC 01 SITE NUMBER 392014101490601

8-40W-20CCC. G. W. SUGAR COMPANY. DRILLED, UNUSED, WATER-TABLE WELL IN OGALLALA FORMATION. DEPTH 282 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF CASING, 1.6 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3716. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 80.40 FEET BELOW LAND SURFACE DATUM FEB 06, 1967.

LOWEST WATER LEVEL 120.39 FEET BELOW LAND SURFACE DATUM SEP 15, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 23, 1984 113.55 ; APR 10, 1984 112.08 ; JUN 04, 1984 111.23 ; SEP 12, 1984 114.10 .

### WELL 08S 40W 25AAC 01 SITE NUMBER 392001101434601

8-40W-25AAC. USGS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 290 FEET, DIAMETER 2 INCHES. MEASURING POINT, FLOOR OF RECORDER HOUSE, 2.5 FEET ABOVE LSD. REPLACEMENT WELL FOR 8-40W-24AAA.

ALTITUDE OF LAND SURFACE 3701. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 157.22 FEET BELOW LAND SURFACE DATUM APR 20, 1968.

LOWEST WATER LEVEL 184.27 FEET BELOW LAND SURFACE DATUM SEP 15, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 23, 1984 182.10 ; JUN 04, 1984 181.60 ; SEP 12, 1984 183.61 .

### WELL 08S 42W 31DCD 01 SITE NUMBER 391828102024901

8-42W-31DCD. USGS. DRILLED, UNUSED, WATER-TABLE WELL IN OGALLALA FORMATION. DEPTH 184 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3872. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 57.30 FEET BELOW LAND SURFACE DATUM OCT 28, 1964.

LOWEST WATER LEVEL 79.62 FEET BELOW LAND SURFACE DATUM SEP 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 24, 1984 79.10 ; APR 10, 1984 79.49 ; JUN 04, 1984 79.40 ; SEP 12, 1984 79.62 .

### WELL 09S 39W 19CCC 01 SITE NUMBER 391502101433001

9-39W-19CCC. BILL COLE. DRILLED, WATER-TABLE IRRIGATIOAN WELL IN OGALLALA FORMATION. DEPTH 200 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, SOUTH, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3695.00 FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 119.57 FEET BELOW LAND SURFACE DATUM MAR 06, 1974.

LOWEST WATER LEVEL 157.82 FEET BELOW LAND SURFACE DATUM SEP 15, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 10, 1984 134.48 ; APR 10, 1984 132.56 ; JUN 04, 1984 131.77 ; SEP 12, 1984 144.26 .

### WELL 09S 40W 29BBB 01 SITE NUMBER 391454101490901

9-40W-29BBB. USGS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 242 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3782. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 118.44 FEET BELOW LAND SURFACE DATUM MAR 09, 1965.

LOWEST WATER LEVEL 161.13 FEET BELOW LAND SURFACE DATUM SEP 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 10, 1984 157.97 ; APR 10, 1984 157.75 ; JUN 04, 1984 157.55 ; SEP 12, 1984 161.13 .

SHERMAN COUNTY -- CONTINUED

WELL 09S 42W 08AAA 01 SITE NUMBER 391730102012701

9-42W-8AAA. USGS. DRILLED, UNUSED, WATER-TABLE WELL IN OGALLALA FORMATION. DEPTH 262 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD. MP CHANGED TO TOP OF CASING, 2.0 FEET ABOVE LSD, JANUARY 1979. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3943. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 128.89 FEET BELOW LAND SURFACE DATUM OCT 28, 1964.

LOWEST WATER LEVEL 160.58 FEET BELOW LAND SURFACE DATUM SEP 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 11, 1984 156.79 ; APR 10, 1984 155.79 ; JUN 04, 1984 155.89 ; SEP 12, 1984 160.58 .

WELL 09S 42W 14AAA 01 SITE NUMBER 391638101580901

9-42W-14AAA. USGS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 278 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3901. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 127.90 FEET BELOW LAND SURFACE DATUM OCT 28, 1964.

LOWEST WATER LEVEL 176.83 FEET BELOW LAND SURFACE DATUM SEP 20, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JUN 04, 1984 166.40 ; SEP 12, 1984 168.58 .

STAFFORD COUNTY

WELL 21S 13W 27DDD 02 SITE NUMBER 381120098434802

21-13W-27DDD2. (19A) ARTHUR GATES. DRILLED, WATER-TABLE OBSERVATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DIAMETER 1.25 INCHES, DEPTH 25 FEET. MEASURING POINT, TOP OF PIPE, 3.10 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1877. FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.50 FEET BELOW LAND SURFACE DATUM MAR 14, 1974.

LOWEST WATER LEVEL 11.18 FEET BELOW LAND SURFACE DATUM SEP 14, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 10.74 ; JAN 09, 1984 10.77 ; MAR 08, 1984 10.97 ; JUN 07, 1984 9.16 ;
SEP 14, 1984 11.18 .

WELL 22S 13W 29DAD 01 SITE NUMBER 380617098460101

22-13W-29DAD. MRS. L. C. WALLS. BORED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 30 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.47 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1902. FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.16 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 25.81 FEET BELOW LAND SURFACE DATUM SEP 07, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 17.83 ; JAN 09, 1984 17.79 ; MAR 08, 1984 17.83 ; JUN 07, 1984 17.81 ;
SEP 14, 1984 19.62 .

## STAFFORD COUNTY -- CONTINUED

### WELL 23S 13W 09CCB 01 SITE NUMBER 380333098465901

23-13W-9CCB. KGS. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 126 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 1895. FEET

RECORDS AVAILABLE 1972 - 1973, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.49 FEET BELOW LAND SURFACE DATUM DEC 17, 1973.

LOWEST WATER LEVEL 13.89 FEET BELOW LAND SURFACE DATUM SEP 14, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 13.05 ; JAN 09, 1984 12.98 ; MAR 08, 1984 12.88 ; JUN 07, 1984 12.03 ;

SEP 14, 1984 13.89 .

### WELL 23S 14W 30BBB 01 SITE NUMBER 380136098544001

23-14W-30BBB. KGS. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 156 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.5 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1988. FEET

RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 29.62 FEET BELOW LAND SURFACE DATUM MAR 25, 1975.

LOWEST WATER LEVEL 61.27 FEET BELOW LAND SURFACE DATUM SEP 07, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 41.20 ; JAN 09, 1984 40.80 S; MAR 09, 1984 40.59 ; JUN 05, 1984 44.84 ;

SEP 14, 1984 56.10 .

### WELL 24S 13W 30BCB 01 SITE NUMBER 375605098480401

24-13W-30BCB. JEROME SATLER. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 49 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF CASING, 1.5 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1936. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.39 FEET BELOW LAND SURFACE DATUM MAR 14, 1974.

LOWEST WATER LEVEL 17.03 FEET BELOW LAND SURFACE DATUM JUN 09, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 15.30 ; JAN 10, 1984 15.68 ; MAR 09, 1984 15.14 ; JUN 04, 1984 14.38 ;

SEP 14, 1984 16.68 .

### WELL 24S 13W 36DDD 01 SITE NUMBER 375439098413701

24-13W-36DDD. GMD 5. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 38 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF CASING, 0.7 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 1907. FEET

RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 19.06 FEET BELOW LAND SURFACE DATUM JUN 26, 1980.

LOWEST WATER LEVEL 24.72 FEET BELOW LAND SURFACE DATUM SEP 23, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 22.70 ; JAN 10, 1984 22.68 ; MAR 09, 1984 22.78 ; JUN 05, 1984 20.35 .

## STAFFORD COUNTY -- CONTINUED

### WELL 25S 11W 23DDD 01 SITE NUMBER 375112098293101

25-11W-23DDD. KGS. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 84 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1796. FEET

RECORDS AVAILABLE 1974, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.98 FEET BELOW LAND SURFACE DATUM JUN 26, 1980.

LOWEST WATER LEVEL 17.56 FEET BELOW LAND SURFACE DATUM MAR 21, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 08, 1983 16.59 ; JAN 10, 1984 17.02 ; MAR 09, 1984 17.27 ; JUN 05, 1984 15.23 ;
SEP 10, 1984 17.27 .

### WELL 25S 13W 03BBB 01 SITE NUMBER 375433098444601

25-13W-3BBB. M. L. HALLEY. DRIVEN, UNUSED, WATER-TABLE WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 32 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 0.8 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1932. FEET

RECORDS AVAILABLE 1951 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.75 FEET BELOW LAND SURFACE DATUM MAY 21, 1952.

LOWEST WATER LEVEL 22.58 FEET BELOW LAND SURFACE DATUM SEP 08, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 20.61 ; JAN 10, 1984 20.56 ; MAR 09, 1984 20.64 ; JUN 05, 1984 19.03 .

### WELL 25S 13W 16AAC 01 SITE NUMBER 375228098451901

25-13W-16AAC. ROBERT SHANK. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH 130 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, NORTHEAST, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1940. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 21.46 FEET BELOW LAND SURFACE DATUM JUN 28, 1978.

LOWEST WATER LEVEL 32.54 FEET BELOW LAND SURFACE DATUM SEP 14, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 27.36 ; JAN 10, 1984 27.15 ; MAR 09, 1984 26.98 ; JUN 05, 1984 24.23 ;
SEP 14, 1984 32.54 .

## STANTON COUNTY

### WELL 27S 39W 27BBA 01 SITE NUMBER 374039101343701

27-39W-27BBA. M. P. MOLZ. DRILLED, ARTESIAN IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 379 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, EAST, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3175. FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 78.41 FEET BELOW LAND SURFACE DATUM JAN 30, 1959.

LOWEST WATER LEVEL 195.81 FEET BELOW LAND SURFACE DATUM AUG 08, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 190.28 ; JAN 12, 1984 181.89 ; AUG 08, 1984 195.81 .

STANTON COUNTY -- CONTINUED

WELL 27S 40W 21DAA 01 SITE NUMBER 374105101412501

27-40W-21DAA. LEAH CARRITHERS. DRILLED, UNUSED, WATER-TABLE WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 85 FEET, DIAMETER 5 INCHES. MEASURING POINT, LOWER EDGE OF BOARD, NORTH, 3.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3235. FEET

RECORDS AVAILABLE 1939 TO CURRENT YEAR.

HIGHEST WATER LEVEL 43.48 FEET BELOW LAND SURFACE DATUM NOV 06, 1958.

LOWEST WATER LEVEL 85.91 FEET BELOW LAND SURFACE DATUM OCT 20, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 77.61 ; APR 17, 1984 78.00 ; AUG 08, 1984 82.91 .

WELL 27S 42W 31CCC 01 SITE NUMBER 373901101573501

27-42W-31CCC. EARL ANDERSON. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS, OGALLALA FORMATION, AND UNDIFFERENTIATED MESOZOIC DEPOSITS. DEPTH 400 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, EAST, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3537. FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 190.33 FEET BELOW LAND SURFACE DATUM FEB 25, 1960.

LOWEST WATER LEVEL 247.24 FEET BELOW LAND SURFACE DATUM OCT 12, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 247.24 ; JAN 11, 1984 235.71 ; APR 17, 1984 235.98 ; AUG 08, 1984 243.81 .

WELL 28S 39W 14BBC 01 SITE NUMBER 373703101334001

28-39W-14BBC. HERBERT CAMPBELL, JR. DRILLED, UNUSED, ARTESIAN WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS, OGALLALA FORMATION, AND UNDIFFERENTIATED MESOZOIC DEPOSITS. DEPTH 419 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CASING, EAST, AT LAND SURFACE. MP CHANGED TO 0.5 FOOT ABOVE LSD, JANUARY 1963. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3158. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 82.01 FEET BELOW LAND SURFACE DATUM MAR 21, 1960.

LOWEST WATER LEVEL 141.53 FEET BELOW LAND SURFACE DATUM JAN 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 12, 1984 141.53 ; APR 17, 1984 141.13 ; AUG 08, 1984 141.00 .

WELL 28S 39W 36ABB 01 SITE NUMBER 373433101320201

28-39W-36ABB. FRED SHORE. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 405 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, SOUTH, 1.3 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 3145. FEET

RECORDS AVAILABLE 1959 - 1960, 1962 - 1967, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 75.05 FEET BELOW LAND SURFACE DATUM MAR 31, 1960.

LOWEST WATER LEVEL 195.18 FEET BELOW LAND SURFACE DATUM JAN 26, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 11, 1984 181.02 ; APR 17, 1984 179.81 ; AUG 08, 1984 190.71 .

STANTON COUNTY -- CONTINUED

WELL 28S 40W 12DDD 02 SITE NUMBER 373716101380902

28-40W-12DDD2. USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 280 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.8 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3225.2 FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 101.53 FEET BELOW LAND SURFACE DATUM MAR 03, 1964.

LOWEST WATER LEVEL 219.23 FEET BELOW LAND SURFACE DATUM OCT 12, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 219.23 ; JAN 12, 1984 202.71 ; APR 17, 1984 209.06 ; AUG 08, 1984 210.06 .

WELL 29S 41W 13ACC 01 SITE NUMBER 373136101450601

29-41W-13ACC. ALLIENE DICE. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 423 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER EDGE OF CUT-OUT SOUTHEAST SIDE OF PUMP, 2.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 3344. FEET

RECORDS AVAILABLE 1959 - 1960, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 178.87 FEET BELOW LAND SURFACE DATUM MAR 30, 1960.

LOWEST WATER LEVEL 258.58 FEET BELOW LAND SURFACE DATUM APR 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 04, 1984 257.00 ; APR 17, 1984 258.58 .

WELL 29S 42W 24CCC 01 SITE NUMBER 373018101521101

29-42W-24CCC. G. H. WILCOX. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS, OGALLALA FORMATION, AND UNDIFFERENTIATED MESOZOIC DEPOSITS. DEPTH 515 FEET, DIAMETER 16 INCHES. MEASURING POINT, PUMP BASE, EAST, 1.6 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 3484. FEET

RECORDS AVAILABLE 1960, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 196.50 FEET BELOW LAND SURFACE DATUM APR 15, 1969.

LOWEST WATER LEVEL 254.38 FEET BELOW LAND SURFACE DATUM DEC 28, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 212.21 ; JAN 04, 1984 205.80 ; APR 17, 1984 204.54 ; AUG 08, 1984 207.06 .

WELL 30S 40W 24CDC 01 SITE NUMBER 372504101384901

30-40W-24CDC. IONE SHORE. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS, OGALLALA FORMATION AND UNDIFFERENTIATED MESOZOIC DEPOSITS. DEPTH 295 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, EAST, 2.0 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3237. FEET

RECORDS AVAILABLE 1959 - 1960, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 105.07 FEET BELOW LAND SURFACE DATUM APR 01, 1960.

LOWEST WATER LEVEL 198.19 FEET BELOW LAND SURFACE DATUM JAN 21, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 182.08 ; JAN 05, 1984 158.59 ; APR 17, 1984 163.51 .

STANTON COUNTY -- CONTINUED

WELL 30S 43W 34BBB 01 SITE NUMBER 372405102005301

30-43W-34BBB. W. T. LAUMAN. DRILLED, ARTESIAN IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 103 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTH SIDE OF PUMP BEHIND PLATE, 1.15 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3622. FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 45.72 FEET BELOW LAND SURFACE DATUM DEC 04, 1958.

LOWEST WATER LEVEL 92.81 FEET BELOW LAND SURFACE DATUM SEP 19, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 98.38 S; JAN 04, 1984 81.73 ; APR 17, 1984 81.16 ; AUG 08, 1984 82.62 .

STEVENS COUNTY

WELL 31S 35W 19CCC 01 SITE NUMBER 371950101102901

31-35W-19CCC. C. H. BUNTON. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 300 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CASING, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3039. FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 178.57 FEET BELOW LAND SURFACE DATUM AUG 12, 1963.

LOWEST WATER LEVEL 227.01 FEET BELOW LAND SURFACE DATUM AUG 08, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 224.78 ; JAN 06, 1984 223.50 ; APR 17, 1984 224.52 ; AUG 08, 1984 227.01 .

WELL 31S 36W 02CDD 01 SITE NUMBER 372227101121501

31-36W-2CDD. MRS. EARL CLARK. DRILLED, ARTESIAN IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 410 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER EDGE OF CUTOUT ON PUMP BASE, EAST, 1.0 FOOT ABOVE LSD. MP CHANGED TO BOLT-HOLE, NORTHEAST, 0.2 FOOT ABOVE LSD, JANUARY 1974. MP CHANGED TO LAND SURFACE, JANUARY 1976. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3019. FEET

RECORDS AVAILABLE 1958 - 1960, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 140.50 FEET BELOW LAND SURFACE DATUM MAR 21, 1960.

LOWEST WATER LEVEL 192.73 FEET BELOW LAND SURFACE DATUM OCT 12, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 185.56 ; JAN 06, 1984 182.74 ; APR 17, 1984 182.51 ; AUG 08, 1984 186.56 .

WELL 31S 37W 22BCC 01 SITE NUMBER 372016101201201

31-37W-22BCC. WALTER CROTTS. DRILLED, WATER-TABLE DOMESTIC WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 258 FEET, DIAMETER 6 INCHES. MEASURING POINT, HOLE INSIDE PUMP BASE, SOUTH SIDE, 0.9 FOOT ABOVE LSD. MEASURED BY OWNER AND KSBA.

ALTITUDE OF LAND SURFACE 3096. FEET

RECORDS AVAILABLE 1956 TO CURRENT YEAR.

HIGHEST WATER LEVEL 121.67 FEET BELOW LAND SURFACE DATUM JAN 14, 1963.

LOWEST WATER LEVEL 187.03 FEET BELOW LAND SURFACE DATUM APR 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 186.71 ; JAN 06, 1984 192.19 R; APR 17, 1984 187.03 .

## STEVENS COUNTY -- CONTINUED

### WELL 32S 35W 08DDD 01 SITE NUMBER 371621101082601

32-35W-8DDD. ARCHIE COOPER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 495 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 0.8 FOOT ABOVE LSD. REPLACEMENT WELL FOR 32-35W-2CBB.

ALTITUDE OF LAND SURFACE 3012. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 127.13 FEET BELOW LAND SURFACE DATUM JAN 19, 1970.

LOWEST WATER LEVEL 164.52 FEET BELOW LAND SURFACE DATUM APR 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 06, 1984 160.31 ; APR 17, 1984 164.52 .

### WELL 34S 38W 02CAC 01 SITE NUMBER 370634101252001

34-38W-2CAC. E. MOSER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 607 FEET. MEASURING POINT, BASE OF CUT-OUT, EAST SIDE OF PUMP, 0.6 FOOT ABOVE LSD. MP CHANGED TO HOLE IN PUMP BASE, EAST, AT LAND SURFACE, JANUARY 1974. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3197. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 131.92 FEET BELOW LAND SURFACE DATUM JAN 19, 1971.

LOWEST WATER LEVEL 162.77 FEET BELOW LAND SURFACE DATUM JUL 07, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 12, 1983 161.36 ; JAN 03, 1984 154.61 ; APR 17, 1984 155.66 .

## THOMAS COUNTY

### WELL 06S 32W 29CDC 01 SITE NUMBER 392946100550001

6-32W-29CDC. C. E. ZIEGELMEIER. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 204 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTH SIDE OF PUMP BASE, 1.0 FOOT ABOVE LSD. REPLACES WELL 6-32W-29CDB.

ALTITUDE OF LAND SURFACE 3077. FEET

RECORDS AVAILABLE 1964 - 1969, 1971 - 1977, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 111.07 FEET BELOW LAND SURFACE DATUM JAN 19, 1966.

LOWEST WATER LEVEL 132.20 FEET BELOW LAND SURFACE DATUM SEP 20, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 10, 1984 124.13 ; JUN 05, 1984 121.27 ; SEP 11, 1984 130.34 .

### WELL 06S 34W 01DDD 01 SITE NUMBER 393315101031501

6-34W-1DDD. JOHN SANDERS. DRILLED, WATER-TABLE DOMESTIC WELL IN OGALLALA FORMATION. DEPTH 156 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, 5.6 FEET BELOW LSD.

RECORDS AVAILABLE 1971, 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 137.10 FEET BELOW LAND SURFACE DATUM DEC 09, 1971.

LOWEST WATER LEVEL 146.92 FEET BELOW LAND SURFACE DATUM SEP 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

APR 11, 1984 142.16 ; JUN 05, 1984 141.80 ; SEP 12, 1984 146.92 .

THOMAS COUNTY -- CONTINUED

WELL 06S 34W 17CBC 01 SITE NUMBER 393144101084301

6-34W-17CBC. C. A. DECHERT. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 264 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, WEST, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3261. FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 148.81 FEET BELOW LAND SURFACE DATUM MAR 11, 1975.

LOWEST WATER LEVEL 167.52 FEET BELOW LAND SURFACE DATUM SEP 15, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 10, 1984 153.40 ; JUN 05, 1984 156.69 ; SEP 12, 1984 158.88 .

WELL 06S 35W 26ACB 01 SITE NUMBER 393020101113101

6-35W-26ACB. LLOYD N. WHITE. DRILLED, UNUSED, WATER-TABLE WELL IN THE OGALLALA FORMATION. DEPTH 250 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF RECORDER FLOOR, 0.8 FOOT ABOVE LSD. RECORDER REMOVED, JANUARY 1975. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3300. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 146.75 FEET BELOW LAND SURFACE DATUM SEP 16, 1975.

LOWEST WATER LEVEL 157.25 FEET BELOW LAND SURFACE DATUM SEP 07, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 11, 1984 154.24 ; JUN 05, 1984 153.73 ; SEP 12, 1984 155.17 .

WELL 07S 36W 17CCC 01 SITE NUMBER 392620101221101

7-36W-17CCC. R. H. MAYER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 275 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3417. FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 131.49 FEET BELOW LAND SURFACE DATUM APR 09, 1963.

LOWEST WATER LEVEL 148.21 FEET BELOW LAND SURFACE DATUM SEP 14, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 11, 1984 142.92 ; APR 11, 1984 142.73 ; JUN 05, 1984 142.52 ; SEP 12, 1984 147.74 .

WELL 08S 31W 03CDD 01 SITE NUMBER 392249100461301

8-31W-3CDD. JOHN R. JOHNSON. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH NOT REPORTED. MEASURING POINT, HOLE NORTH SIDE OF PUMP BASE, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3003.00 FEET

RECORDS AVAILABLE 1950 TO CURRENT YEAR.

HIGHEST WATER LEVEL 128.00 FEET BELOW LAND SURFACE DATUM JAN 11, 1980.

LOWEST WATER LEVEL 146.23 FEET BELOW LAND SURFACE DATUM SEP 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 10, 1984 133.44 ; APR 11, 1984 132.43 ; JUN 05, 1984 132.49 ; SEP 11, 1984 133.74 .

WELL 08S 32W 27DAB 01 SITE NUMBER 391940100521901

8-32W-27DAB. T. A. RYAN. DRILLED, UNUSED, WATER-TABLE WELL IN THE OGALLALA FORMATION. DEPTH 156 FEET, DIAMETER 8 INCHES. MEASURING POINT, TOP WEST SIDE OF CASING, 0.6 FOOT ABOVE LSD. MP CHANGED TO LAND SURFACE, JANUARY 1970. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3078. FEET

RECORDS AVAILABLE 1942 TO CURRENT YEAR.

HIGHEST WATER LEVEL 88.64 FEET BELOW LAND SURFACE DATUM SEP 15, 1975.

LOWEST WATER LEVEL 122.79 FEET BELOW LAND SURFACE DATUM SEP 19, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JUN 05, 1984 121.17 ; SEP 11, 1984 118.15 .

THOMAS COUNTY -- CONTINUED

WELL 08S 33W 34BBC 01 SITE NUMBER 391908100595301

8-33W-34BBC. HAROLD HILLS, JR. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 200 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SIDE OF PUMP, 0.6 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3168. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 128.38 FEET BELOW LAND SURFACE DATUM MAR 08, 1966.

LOWEST WATER LEVEL 162.60 FEET BELOW LAND SURFACE DATUM JUN 09, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 24, 1984 148.70 ; APR 11, 1984 147.77 ; JUN 05, 1984 150.32 ; SEP 12, 1984 155.73 .

WELL 08S 34W 01BAC 01 SITE NUMBER 392329101040201

8-34W-1BAC. KS. AGRICULTURAL EXPERIMENT STATION. DRILLED, UNUSED, WATER-TABLE WELL IN OGALLALA FORMATION. DIAMETER 16 INCHES, DEPTH 160 FEET. MEASURING POINT, TOP OF HOLE IN CONCRETE WELL COVER, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3177. FEET

RECORDS AVAILABLE 1947 TO CURRENT YEAR.

HIGHEST WATER LEVEL 112.31 FEET BELOW LAND SURFACE DATUM MAY 20, 1954.

LOWEST WATER LEVEL 128.87 FEET BELOW LAND SURFACE DATUM SEP 06, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 05, 1983 | 128.40 | NOV 22, 1983 | 126.70 | MAY 21, 1984 | 125.79 | SEP 14, 1984 | 125.78 |
| 10 | 128.67 | JAN 4, 1984 | 126.13 | JUN 25 | 126.44 | 21 | 126.08 |
| 17 | 127.74 | MAR 30 | 125.67 | JUL 25 | 128.19 | | |
| 19 | 127.20 | APR 17 | 125.55 | AUG 15 | 125.31 | | |

WELL 08S 36W 18ABA 02 SITE NUMBER 392153101223802

8-36W-18ABA2. NORA CARPENTER. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN THE OGALLALA FORMATION. DEPTH 140 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, WEST SIDE, 0.3 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3428. FEET

RECORDS AVAILABLE 1942 TO CURRENT YEAR.

HIGHEST WATER LEVEL 122.09 FEET BELOW LAND SURFACE DATUM MAR 08, 1966.

LOWEST WATER LEVEL 132.10 FEET BELOW LAND SURFACE DATUM SEP 10, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JUN 05, 1984 129.61 ; SEP 12, 1984 130.11 .

WELL 10S 33W 06BBC 01 SITE NUMBER 391303101031701

10-33W-6BBC. D. S. DAHL. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 316 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN COVER, AT LAND SURFACE. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3191. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 160.64 FEET BELOW LAND SURFACE DATUM MAR 11, 1971.

LOWEST WATER LEVEL 230.89 FEET BELOW LAND SURFACE DATUM MAR 17, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JUN 05, 1984 172.71 ; SEP 12, 1984 183.1[illegible] .

## TREGO COUNTY

### WELL 12S 23W 20CCC 01 SITE NUMBER 385919099542601

12-23W-20CCC. HOWARD + FLOYD KEYSER. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DEPTH 65 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 2373.6 FEET

RECORDS AVAILABLE 1960, 1964 - 1965, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 18.11 FEET BELOW LAND SURFACE DATUM JUN 05, 1980.

LOWEST WATER LEVEL 26.22 FEET BELOW LAND SURFACE DATUM SEP 01, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 01, 1983 23.00 ; MAR 22, 1984 21.20 ; SEP 13, 1984 22.50 .

## WABAUNSEE COUNTY

### WELL 10S 10E 15DCC 01 SITE NUMBER 391029096171301

10-10E-15DCC. KGS. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 39 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 971. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.65 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 20.58 FEET BELOW LAND SURFACE DATUM MAR 17, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 13.80 ; MAR 09, 1984 13.10 ; JUN 07, 1984 9.64 ; SEP 12, 1984 12.30 .

### WELL 10S 12E 29ADD 01 SITE NUMBER 390909096053101

10-12E-29ADD. KGS. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM AND NEWMAN TERRACE DEPOSITS. DEPTH NOT REPORTED, DIAMETER 2 INCHES. MEASURING POINT, TOP OF CASING, 2.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 944.4 FEET

RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.50 FEET BELOW LAND SURFACE DATUM JUN 08, 1982.

LOWEST WATER LEVEL 20.84 FEET BELOW LAND SURFACE DATUM DEC 08, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 15.45 ; MAR 09, 1984 16.50 ; JUN 07, 1984 13.65 ; SEP 12, 1984 18.16 .

## WALLACE COUNTY

### WELL 11S 38W 35CCC 02 SITE NUMBER 390254101305402

11-38W-35CCC2. LINDY BRETZ. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 189 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP, NORTHWEST, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3372. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 76.00 FEET BELOW LAND SURFACE DATUM AUG 25, 1966.

LOWEST WATER LEVEL 148.62 FEET BELOW LAND SURFACE DATUM JAN 05, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 136.27 ; APR 10, 1984 128.76 ; JUN 05, 1984 128.79 ; SEP 12, 1984 129.95 .

## WALLACE COUNTY -- CONTINUED

### WELL 11S 42W 08DDC 01 SITE NUMBER 390618102000301

11-42W-8DDC. THERON CULWELL. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 166 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, NORTHEAST, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3953. FEET

RECORDS AVAILABLE 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 99.89 FEET BELOW LAND SURFACE DATUM MAR 06, 1970.

LOWEST WATER LEVEL 118.94 FEET BELOW LAND SURFACE DATUM SEP 15, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 24, 1984 108.25 ; APR 10, 1984 107.52 ; JUN 05, 1984 107.04 ; SEP 12, 1984 117.90 .

### WELL 13S 39W 33BBB 01 SITE NUMBER 385314101395701

13-39W-33BBB. E. L. TILTON. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DEPTH 66 FEET. MEASURING POINT, CASING SOUTH SIDE, 0.3 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3322. FEET

RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.24 FEET BELOW LAND SURFACE DATUM APR 20, 1983.

LOWEST WATER LEVEL 30.27 FEET BELOW LAND SURFACE DATUM JUN 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 25.87 ; JAN 10, 1984 25.94 ; APR 19, 1984 25.79 .

### WELL 13S 42W 10BAC 01 SITE NUMBER 385635101583001

13-42W-10BAC. HOWARD WILSON. DRILLED, WATER-TABLE STOCK WELL IN OGALLALA FORMATION. DEPTH 52 FEET, DIAMETER 4 INCHES. MEASURING POINT, HOLE IN PUMP BASE, EAST, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3770. FEET

RECORDS AVAILABLE 1973, 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 37.97 FEET BELOW LAND SURFACE DATUM JAN 16, 1973.

LOWEST WATER LEVEL 40.53 FEET BELOW LAND SURFACE DATUM JUN 15, 1952.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JUN 05, 1984 38.93 ; SEP 12, 1984 39.73 .

### WELL 14S 42W 14DBD 01 SITE NUMBER 385006101570301

14-42W-14DBD. G. DOOP. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 400 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE INSIDE HOUSING, WEST, 0.6 FOOT ABOVE LSD. MP CHANGED TO LAND SURFACE, MARCH 1976. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3796. FEET

RECORDS AVAILABLE 1958, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 102.06 FEET BELOW LAND SURFACE DATUM JUN 24, 1958.

LOWEST WATER LEVEL 153.19 FEET BELOW LAND SURFACE DATUM JAN 18, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 150.81 R; JAN 09, 1984 151.61 ; APR 19, 1984 151.39 .

### WELL 15S 38W 28DBB 01 SITE NUMBER 384315101325301

15-38W-28DBB. SELMA NELSON. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 202 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP BASE, WEST, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3502. FEET

RECORDS AVAILABLE 1960, 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 85.70 FEET BELOW LAND SURFACE DATUM OCT 07, 1960.

LOWEST WATER LEVEL 150.33 FEET BELOW LAND SURFACE DATUM OCT 06, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 10, 1984 148.18 ; APR 19, 1984 149.91 .

WALLACE COUNTY -- CONTINUED

WELL 15S 39W 028CD 01 SITE NUMBER 384651101374201

15-39W-28CD. FRASIER FARMS. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 195 FEET, DIAMETER 30 INCHES. MEASURING POINT, HOLE IN PUMP, SOUTHWEST, 0.2 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3585. FEET

RECORDS AVAILABLE 1958, 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 112.22 FEET BELOW LAND SURFACE DATUM JUN 23, 1958.

LOWEST WATER LEVEL 157.89 FEET BELOW LAND SURFACE DATUM SEP 21, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 155.23 ; JAN 10, 1984 152.47 ; APR 19, 1984 150.93 .

WELL 15S 39W 08ACC 01 SITE NUMBER 384558101403701

15-39W-8ACC. WILLIAM MAI. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 222 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP BASE, NORTHEAST, 2.0 FEET ABOVE LSD. MP CHANGED TO HOLE IN PUMP BASE, SOUTHEAST, 3.0 FEET ABOVE LSD, JANUARY 1976. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3623. FEET

RECORDS AVAILABLE 1948, 1951, 1958, 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 104.00 FEET BELOW LAND SURFACE DATUM MAY 10, 1948.

LOWEST WATER LEVEL 163.31 FEET BELOW LAND SURFACE DATUM SEP 13, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 159.06 ; JAN 10, 1984 159.83 ; APR 19, 1984 159.91 .

WELL 15S 39W 26ACC 01 SITE NUMBER 384323101372101

15-39W-26ACC. JOHN LARSON. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FROMATION. DEPTH 239 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, WEST, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3561. FEET

RECORDS AVAILABLE 1960, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 95.93 FEET BELOW LAND SURFACE DATUM OCT 07, 1960.

LOWEST WATER LEVEL 154.51 FEET BELOW LAND SURFACE DATUM APR 19, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 10, 1984 154.21 ; APR 19, 1984 154.51 .

WELL 15S 40W 03BAB 01 SITE NUMBER 384710101451901

15-40W-3BAB. J. C. HEISE. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 256 FEET, DIAMETER 16 INCHES, MEASURING POINT, TOP OF CASING, EAST, 0.2 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3636. FEET

RECORDS AVAILABLE 1957 - 1958, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 74.56 FEET BELOW LAND SURFACE DATUM JUN 19, 1958.

LOWEST WATER LEVEL 125.27 FEET BELOW LAND SURFACE DATUM JUL 28, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 123.37 ; JAN 09, 1984 119.83 ; APR 19, 1984 121.42 ; JUL 26, 1984 124.83 .

## WALLACE COUNTY -- CONTINUED

### WELL 15S 41W 10BAB 01 SITE NUMBER 384618101515901

15-41W-10BAB. O. F. BRANDBERG. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 264 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF PIPE, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3787. FEET

RECORDS AVAILABLE 1958, 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 161.16 FEET BELOW LAND SURFACE DATUM JUN 11, 1958.

LOWEST WATER LEVEL 216.77 FEET BELOW LAND SURFACE DATUM JUL 28, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 205.27 ; JAN 09, 1984 200.70 ; APR 19, 1984 201.51 ; JUL 26, 1984 204.23 .

### WELL 15S 41W 36DDB 02 SITE NUMBER 384212101491702

15-41W-36DDB2. F. R. POTTER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 265 FEET, DIAMETER 16 INCHES. MEASURING POINT, REMOVE 0.75 INCH PLUG ON SOUTH SIDE, 1.5 FEET ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3695. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 110.36 FEET BELOW LAND SURFACE DATUM MAR 28, 1967.

LOWEST WATER LEVEL 147.37 FEET BELOW LAND SURFACE DATUM OCT 06, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

APR 19, 1984 143.05 .

## WASHINGTON COUNTY

### WELL 01S 05E 05ADA 01 SITE NUMBER 395948096524601

1-5E-5ADA. M. + N. SCHRAMM. DRILLED, WATER-TABLE IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 75 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, SOUTHEAST, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1370. FEET

RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 35.94 FEET BELOW LAND SURFACE DATUM JUN 05, 1980.

LOWEST WATER LEVEL 44.70 FEET BELOW LAND SURFACE DATUM SEP 14, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 42.27 ; MAR 09, 1984 41.35 ; JUN 07, 1984 39.85 ; SEP 02, 1984 42.22 ;
SEP 12, 1984 42.22 .

### WELL 04S 02E 14CCC 01 SITE NUMBER 394155097104501

4-2E-14CCC. ERNA HELMS. DRILLED, ABANDONED, WATER-TABLE DOMESTIC WELL IN DAKOTA FORMATION. DEPTH 150 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, UNDER PUMP BASE, SOUTHWEST SIDE, AT LAND SURFACE. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 1455. FEET

RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 45.94 FEET BELOW LAND SURFACE DATUM JUN 03, 1981.

LOWEST WATER LEVEL 47.75 FEET BELOW LAND SURFACE DATUM MAR 10, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 09, 1984 47.35 ; JUN 07, 1984 47.10 ; SEP 12, 1984 47.05 .

### WASHINGTON COUNTY -- CONTINUED

WELL 05S 01E 20ADA C1 SITE NUMBER 393624097195301

5-1E-20ADA. MARY HAMEL. DRILLED, WATER-TABLE DOMESTIC WELL. DEPTH 110 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, SOUTHEAST, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA. REPLACEMENT WELL FOR 5-1E-20CCC.

ALTITUDE OF LAND SURFACE 1325. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 37.70 FEET BELOW LAND SURFACE DATUM MAR 11, 1982.

LOWEST WATER LEVEL 49.30 FEET BELOW LAND SURFACE DATUM SEP 14, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 45.50 ; MAR 09, 1984 44.20 ; JUN 07, 1984 41.44 ; SEP 12, 1984 47.75 .

WELL 05S 01E 31DDD 01 SITE NUMBER 393407097205901

5-1E-31DDD. L. F. TOBYNE. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 63 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1278. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.43 FEET BELOW LAND SURFACE DATUM JUN 07, 1984.

LOWEST WATER LEVEL 19.55 FEET BELOW LAND SURFACE DATUM SEP 09, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 09, 1983 17.22 ; MAR 09, 1984 16.80 ; JUN 07, 1984 14.43 ; SEP 12, 1984 17.16 .

### WICHITA COUNTY

WELL 16S 35W 20CCC 01 SITE NUMBER 383937101130601

16-35W-20CCC. E. L. MILLER, DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 189 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3228. FEET

RECORDS AVAILABLE 1950 - 1951, 1953 TO CURRENT YEAR.

HIGHEST WATER LEVEL 103.24 FEET BELOW LAND SURFACE DATUM MAY 07, 1951.

LOWEST WATER LEVEL 163.48 FEET BELOW LAND SURFACE DATUM OCT 06, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 163.48 ; JAN 09, 1984 155.93 .

WELL 16S 37W 13BBC 01 SITE NUMBER 384008101215301

16-37W-13BBC. DEAN WIEGERS. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 136 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP BASE, WEST, AT LAND SURFACE. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3331. FEET

RECORDS AVAILABLE 1950 - 1951, 1953 TO CURRENT YEAR.

HIGHEST WATER LEVEL 77.54 FEET BELOW LAND SURFACE DATUM NOV 16, 1950.

LOWEST WATER LEVEL 129.81 FEET BELOW LAND SURFACE DATUM JUL 26, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 126.76 ; JAN 09, 1984 129.18 ; APR 19, 1984 129.28 ; JUL 26, 1984 129.81 .

## WICHITA COUNTY -- CONTINUED

### WELL 16S 38W 10ABB 01 SITE NUMBER 384106101300501

16-38W-10ABB. MARGARET BUEHLER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 210 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN HOUSING, EAST, 1.0 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3458. FEET

RECORDS AVAILABLE 1951, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 77.56 FEET BELOW LAND SURFACE DATUM MAR 29, 1951.

LOWEST WATER LEVEL 153.26 FEET BELOW LAND SURFACE DATUM OCT 06, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 06, 1983 153.26 ; JAN 09, 1984 144.95 .

### WELL 17S 35W 30CBB 01 SITE NUMBER 383251101141001

17-35W-30CBB. G. KNOBBE. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FROMATION. DEPTH 218 FEET, DIAMETER 18 INCHES. MEASURING POINT, CONCRETE BASE, EAST, AT LAND SURFACE. MP CHANGED TO TOP OF CUTOUT, NORTH, 0.4 FOOT ABOVE LSD, JANUARY 1980. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3235. FEET

RECORDS AVAILABLE 1951, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 94.12 FEET BELOW LAND SURFACE DATUM APR 15, 1951.

LOWEST WATER LEVEL 178.63 FEET BELOW LAND SURFACE DATUM OCT 07, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 07, 1983 178.63 ; JAN 10, 1984 162.60 .

### WELL 17S 36W 33BCB 01 SITE NUMBER 383210101183401

17-36W-33BCB. EUGENE BERNING. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 187 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CASING, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3286. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 112.35 FEET BELOW LAND SURFACE DATUM MAR 31, 1966.

LOWEST WATER LEVEL 177.22 FEET BELOW LAND SURFACE DATUM MAR 15, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| OCT 01, 1983 | 145.30 | JAN 01, 1984 | 143.00 | APR 01, 1984 | 143.35 | JUL 01, 1984 | 144.65 |
| 07 | 145.43 | 10 | 157.74 | 24 | 143.76 | 27 | 147.07 |
| NOV 01 | 143.92 | FEB 01 | 143.33 | MAY 01 | 143.15 | AUG 01 | 146.77 |
| DEC 01 | 143.45 | MAR 01 | 143.15 | JUN 01 | 142.90 | SEP 01 | 147.80 |

### WELL 17S 37W 28CCC 01 SITE NUMBER 383228101250901

17-37W-28CCC. JEAGER FARMS. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 190 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN PUMP BASE, SOUTHEAST, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3360. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 98.31 FEET BELOW LAND SURFACE DATUM MAR 30, 1966.

LOWEST WATER LEVEL 151.71 FEET BELOW LAND SURFACE DATUM JAN 17, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 133.87 ; APR 20, 1984 135.54 .

WICHITA COUNTY -- CONTINUED

WELL 17S 35W 21BBB C1 SITE NUMBER 383406101314401

17-35W-21BBB. G. + F. BAUCK. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 165 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN BASE, EAST, 0.5 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3446. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 90.00 FEET BELOW LAND SURFACE DATUM NOV 10, 1964.

LOWEST WATER LEVEL 127.70 FEET BELOW LAND SURFACE DATUM JAN 18, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 127.56 .

WELL 18S 35W 14DCD C1 SITE NUMBER 382902101090301

18-35W-14DCD. P. E. + F. W. KRAUSE. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 139 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTH SIDE OF PUMP BASE, 0.4 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3171. FEET

RECORDS AVAILABLE 1951, 1959 - 1966, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 79.74 FEET BELOW LAND SURFACE DATUM APR 11, 1951.

LOWEST WATER LEVEL 119.55 FEET BELOW LAND SURFACE DATUM OCT 07, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 10, 1984 115.17 ; APR 24, 1984 113.54 .

WELL 18S 37W 21BBB C1 SITE NUMBER 382852101250901

18-37W-21BBB. RUTH GIESON. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 195 FEET, DIAMETER 16 INCHES. MEASURING POINT, 1-INCH HOLE IN PUMP BASE, SOUTHWEST, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3360. FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 98.26 FEET BELOW LAND SURFACE DATUM FEB 20, 1962.

LOWEST WATER LEVEL 170.96 FEET BELOW LAND SURFACE DATUM OCT 07, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 163.45 .

WELL 18S 38W 20ACC C2 SITE NUMBER 382831101321702

18-38W-20ACC2. J. A. REIMER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 169 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, EAST, 0.3 FOOT ABOVE LSD. MEASURED BY KSBA.

ALTITUDE OF LAND SURFACE 3440. FEET

RECORDS AVAILABLE 1951, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 90.23 FEET BELOW LAND SURFACE DATUM MAR 21, 1951.

LOWEST WATER LEVEL 138.74 FEET BELOW LAND SURFACE DATUM DEC 11, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1984 130.71 ; APR 20, 1984 135.25 .

### WELL 11S 24E 14BDA C1 SITE NUMBER 390543094430601

11-24E-14BDA. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 53 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 754.4 FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.90 FEET BELOW LAND SURFACE DATUM DEC 26, 1973.

LOWEST WATER LEVEL 31.45 FEET BELOW LAND SURFACE DATUM MAR 05, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 23.52 ; MAR 07, 1984 23.53 ; JUN 05, 1984 21.75 ; SEP 14, 1984 23.80 .

### WELL 11S 24E 32ABA 02 SITE NUMBER 390319094460802

11-24E-32ABA2. JOHNSON CO. W.D. 1. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH NOT REPORTED, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 0.3 FOOT ABOVE LSD. MEASURED BY OWNER. MP CHANGED TO 2.3 FEET ABOVE LSD, JUNE 1972. MP CHANGED TO TOP OF PIPE, 2.1 FEET ABOVE LSD, SEPTEMBER 1976. MP CHANGED TO LAND SURFACE, SEPTEMBER 1983.

ALTITUDE OF LAND SURFACE 765. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.40 FEET BELOW LAND SURFACE DATUM FEB 02, 1982.

LOWEST WATER LEVEL 45.50 FEET BELOW LAND SURFACE DATUM APR 02, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|
| NOV 01, 1983 | 41.00 | MAR 07, 1984 | 44.30 | JUN 05, 1984 | 38.90 | SEP 14, 1984 | 41.50 |
| DEC 07 | 42.78 | APR 02 | 45.50 | 06 | 38.00 | | |
| JAN 03, 1984 | 44.00 | JUN 01 | 27.85 | AUG 01 | 28.00 | | |

### WELL 11S 25E 20BAB C2 SITE NUMBER 390503094395902

11-25E-20BAB2. KGS. AUGERED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 77 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD. MP CHANGED TO 13.5 FEET ABOVE LSD, WHEN KANSAS RIVER LEVEE WAS RAISED, SEPTEMBER 1972.

ALTITUDE OF LAND SURFACE 766. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.32 FEET BELOW LAND SURFACE DATUM JUN 10, 1982.

LOWEST WATER LEVEL 46.88 FEET BELOW LAND SURFACE DATUM MAR 05, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1983 42.34 ; MAR 07, 1984 42.22 ; JUN 05, 1984 35.90 ; SEP 14, 1984 41.10 .

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### ATCHISON COUNTY

| LOCAL IDENTIFIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEOLOGIC UNIT | DATE | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) | HARDNESS (MG/L AS CACO3) | CALCIUM DISSOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 05S 20E 18CDC 01 | 393637095131601 | 30.00 | 112KGFV | 84-05-24 | 863 | 7.0 | 14.0 | 200 | 65 |
| 06S 18E 22BCD 01 | 393056095235201 | 250.00 | 112NBRK | 84-05-23 | 1210 | 7.6 | 15.0 | 200 | 52 |

| LOCAL IDENTIFIER | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY FIELD (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 05S 20E 18CDC 01 | 9.7 | 19 | 17 | 0.6 | 0.59 | 286 | 91 | 32 |
| 06S 18E 22BCD 01 | 18 | 160 | 61 | 5 | 8.9 | 444 | 41 | 130 |

| LOCAL IDENTIFIER | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, DISSOLVED (MG/L AS P) | IRON, DISSOLVED (UG/L AS FE) | MANGANESE, DISSOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 05S 20E 18CDC 01 | 0.3 | 30 | 420 | 0.15 | 2.00 | 0.09 | 30 | <10 |
| 06S 18E 22BCD 01 | 0.4 | 37 | 720 | 1.30 | 0.06 | 0.16 | 30 | 170 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### BARBER COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 30S 11W 34BBC 01 | 372341098310601 | 60.00 | 112PLSC | 84-08-08 | 505 | 7.3 | 15.5 | 210 |
| 31S 12W 24BDD 01 | 371959098343801 | 40.00 |  | 84-08-08 | 655 | 7.5 | 19.5 | 270 |
| 32S 10W 21BBA 02 | 371507098250502 | 43.00 |  | 84-08-08 | 1200 | 7.3 | 16.0 | 390 |
| 33S 11W 33ABB 01 | 370811098310901 | 29.00 |  | 84-08-08 | 2450 | 7.3 | 18.0 | 800 |

| LOCAL IDENT-I-FIER | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 30S 11W 34BBC 01 | 24 | 72 | 6.2 | 23 | 19 | 0.7 | 2.1 | 182 |
| 31S 12W 24BDD 01 | 65 | 86 | 13 | 30 | 19 | 0.8 | 3.7 | 203 |
| 32S 10W 21BBA 02 | 130 | 100 | 34 | 97 | 35 | 2 | 1.7 | 263 |
| 33S 11W 33ABB 01 | 490 | 200 | 73 | 200 | 35 | 3 | 16 | 312 |

| LOCAL IDENT-I-FIER | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 30S 11W 34BBC 01 | 19 | 11 | 0.3 | 21 | 260 | <0.01 | 9.60 | <0.01 |
| 31S 12W 24BDD 01 | 74 | 36 | 0.4 | 20 | 380 | 0.02 | 0.97 | <0.01 |
| 32S 10W 21BBA 02 | 170 | 120 | 0.4 | 17 | 700 | <0.01 | 2.20 | <0.01 |
| 33S 11W 33ABB 01 | 180 | 400 | 0.3 | 15 | 1300 | 0.04 | 41.0 | 0.01 |

| LOCAL IDENT-I-FIER | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 30S 11W 34BBC 01 | 2 | 240 | <1 | <10 | <10 | 20 | <1 | <10 |
| 31S 12W 24BDD 01 | -- | -- | -- | -- | -- | 20 | -- | 10 |
| 32S 10W 21BBA 02 | 4 | 70 | <1 | <10 | 10 | 30 | <1 | <10 |
| 33S 11W 33ABB 01 | -- | -- | -- | -- | -- | 40 | -- | 130 |

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WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

BARBER COUNTY--Continued

| LOCAL IDENT-I-FIER | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 30S 11W 34BBC 01 | <0.5 | <1 | 10 | 10 | -- | ND | ND | ND |
| 31S 12W 24BDD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 32S 10W 21BBA 02 | <0.5 | 2 | <10 | 20 | 0.7 | ND | ND | ND |
| 33S 11W 33ABB 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 30S 11W 34BBC 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 31S 12W 24BDD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 32S 10W 21BBA 02 | ND | ND | ND | ND | ND | ND | ND | ND |
| 33S 11W 33ABB 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | LINDANE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 30S 11W 34BBC 01 | ND | ND | ND | ND | ND | 0.8 | ND | ND |
| 31S 12W 24BDD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 32S 10W 21BBA 02 | ND | ND | ND | ND | ND | ND | ND | ND |
| 33S 11W 33ABB 01 | -- | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

## BARTON COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACC3) | HARD- NESS, NONCAR- BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 19S 11W 31C 01 | 382106098350801 | 54.00 | | 84-07-12 | 2000 | 7.4 | 15.0 | 610 | 360 |
| 20S 14W 27BCA 01 | 381708098513901 | 80.00 | 112PLSC | 84-08-28 | 650 | 7.9 | -- | 250 | 21 |

| LOCAL IDENT- I- FIER | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 19S 11W 31C 01 | 190 | 34 | 210 | 42 | 4 | 6.3 | 259 | 520 | 190 |
| 20S 14W 27BCA 01 | 78 | 14 | 44 | 27 | 1 | 3.0 | 231 | 51 | 35 |

| LOCAL IDENT- I- FIER | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 19S 11W 31C 01 | 0.4 | 20 | 1300 | 0.21 | 1.40 | 0.01 | 20 | <10 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

BROWN COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 01S 17E 07CBC 01 | 395833095334401 | 40.00 | 112ALVM | 84-05-30 | 858 | 6.9 | 13.0 | 34 |
| 02S 17E 31DDC 01 | 394939095324601 | -- | | 84-05-30 | 623 | 7.3 | 12.5 | 25 |

| LOCAL IDENT- I- FIER | HARD- NESS, NONCAR- BONATE (MG/L CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 01S 17E 07CBC 01 | 4 | 110 | 17 | 36 | 18 | 0.9 | 0.9 | 341 |
| 02S 17E 31DDC 01 | -- | 71 | 18 | 27 | 19 | 0.8 | 0.7 | 302 |

| LOCAL IDENT- I- FIER | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 01S 17E 07CBC 01 | 77 | 51 | 0.2 | 28 | 520 | 0.16 | 6.60 | <0.01 |
| 02S 17E 31DDC 01 | 30 | 5.6 | 0.3 | 28 | 360 | <0.01 | 9.40 | <0.01 |

| LOCAL IDENT- I- FIER | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | CADMIUM DIS- SOLVED (UG/L AS CD) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 01S 17E 07CBC 01 | -- | -- | -- | -- | -- | <20 | -- | <10 |
| 02S 17E 31DDC 01 | <10 | 200 | <1 | <10 | 10 | <10 | <1 | 10 |

| LOCAL IDENT- I- FIER | MERCURY DIS- SOLVED (UG/L AS HG) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | ZINC, DIS- SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA- CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA- ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 01S 17E 07CBC 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 02S 17E 31DDC 01 | <0.5 | 1 | <10 | <10 | <0.1 | ND | ND | ND |

| LOCAL IDENT- I- FIER | CHLOR- DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI- ELDRIN TOTAL (UG/L) | METOLA- CHLOR IN WHOLE WATER (UG/L) | PROPA- CHLOR IN WHOLE WATER (UG/L) | METRI- BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 01S 17E 07CBC 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 02S 17E 31DDC 01 | ND | ND | ND | ND | ND | ND | ND | ND |

| LOCAL IDENT- I- FIER | LINDANE TOTAL (UG/L) | METH- OXY- CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX- APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 01S 17E 07CBC 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 02S 17E 31DDC 01 | ND | ND | ND | ND | ND | ND | ND | ND |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### BUTLER COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 24S 03E 17CAB 01 | 375742097074401 | -- | 310PRMN | 84-07-18 | 866 | 7.4 | 13.5 | 360 |
| 29S 03E 20BAB 01 | 373112097073501 | -- |  | 84-08-17 | 1490 | 7.5 | 23.0 | 760 |
| 29S 07E 07DDA 01 | 373212096414901 | 240.00 | 319CHSE | 84-07-17 | 580 | 7.2 | 16.5 | 260 |

| LOCAL IDENT-I-FIER | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 24S 03E 17CAB 01 | -- | 96 | 28 | 83 | 34 | 2 | 0.7 | 394 |
| 29S 03E 20BAB 01 | 370 | 220 | 52 | 61 | 15 | 1 | 0.8 | 390 |
| 29S 07E 07DDA 01 | -- | 84 | 12 | 33 | 22 | 0.9 | 0.3 | 372 |

| LOCAL IDENT-I-FIER | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 24S 03E 17CAB 01 | 72 | 9.3 | 0.4 | 16 | 540 | <0.01 | 20.0 | <58.0 |
| 29S 03E 20BAB 01 | 460 | 65 | 0.5 | 18 | 1100 | 0.09 | 3.90 | <0.01 |
| 29S 07E 07DDA 01 | <10 | 5.8 | 0.2 | 16 | -- | <0.01 | 1.70 | 0.03 |

| LOCAL IDENT-I-FIER | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 24S 03E 17CAB 01 | -- | -- | -- | -- | -- | 210 | -- | 10 |
| 29S 03E 20BAB 01 | 2 | <10 | <1 | 10 | 10 | <10 | <1 | <10 |
| 29S 07E 07DDA 01 | -- | -- | -- | -- | -- | E20 | -- | 10 |

| LOCAL IDENT-I-FIER | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 24S 03E 17CAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29S 03E 20BAB 01 | <0.5 | 3 | <10 | 40 | 0.8 | ND | ND | ND |
| 29S 07E 07DDA 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 24S 03E 17CAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29S 03E 20BAB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 29S 07E 07DDA 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | LINDANE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 24S 03E 17CAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29S 03E 20BAB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 29S 07E 07DDA 01 | -- | -- | -- | -- | -- | -- | -- | -- |

E Estimated value.
ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### CHASE COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 19S 07E 27CBC 01 | 382202096390401 | -- | | 84-07-17 | 1140 | 7.1 | 15.0 | 500 | -- |
| 19S 08E 20AAA 01 | 382327096321801 | 57.00 | 112ALVM | 84-07-17 | 1030 | 7.3 | 18.0 | 520 | 150 |
| 22S 08E 05CCA 01 | 380944096331101 | 55.00 | 319CCGV | 84-07-17 | 875 | 7.0 | 12.0 | 440 | 7 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 19S 07E 27CBC 01 | 140 | 36 | 62 | 21 | 1 | 0.9 | 551 | 73 | 73 |
| 19S 08E 20AAA 01 | 150 | 36 | 24 | 9 | 0.5 | 1.9 | 376 | 180 | 89 |
| 22S 08E 05CCA 01 | 140 | 21 | 25 | 11 | 0.5 | 1.3 | 429 | 62 | 32 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 19S 07E 27CBC 01 | 0.3 | 21 | 740 | 0.07 | 0.19 | 0.43 | 10 | 150 |
| 19S 08E 20AAA 01 | 0.1 | 26 | 730 | 0.08 | 0.29 | 0.64 | 20 | 10 |
| 22S 08E 05CCA 01 | 0.2 | 25 | 560 | <0.01 | 4.80 | 0.14 | 30 | 10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### CHEROKEE COUNTY

| LOCAL IDENT-I-FIER | | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|---|
| 32S 23E 06AD 01 | | 371723094552501 | -- | | 84-07-11 | 1670 | 7.3 | 24.0 | 360 | 16 |
| 33S 23E 13ABB 01 | | 371035094501301 | -- | | 84-07-10 | 969 | 7.3 | 22.0 | 230 | -- |
| 33S 25E 18DAA 01 | | 371007094623501 | -- | | 84-07-10 | 480 | 7.4 | 18.0 | 230 | -- |
| 34S 24E 17DDC 01 | | 370437094475501 | -- | | 84-07-12 | 1030 | 7.8 | 19.0 | 220 | 16 |
| 34S 24E 36DB 01 | | 370215094460301 | 1094.00 | | 84-07-11 | 616 | 7.5 | 20.0 | 250 | 64 |
| 34S 25E 23AAC 01 | GALENA | 370421094381301 | 1189.00 | 367RBDX | 84-07-11 | 456 | 7.4 | 20.0 | 190 | 12 |

| LOCAL IDENT-I-FIER | | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|---|
| 32S 23E 06AD 01 | | 88 | 34 | 210 | 55 | 5 | 10 | 344 | 100 | 300 |
| 33S 23E 13ABB 01 | | 56 | 23 | 120 | 52 | 4 | 6.9 | 372 | 66 | 110 |
| 33S 25E 18DAA 01 | | 58 | 20 | 18 | 14 | 0.5 | 3.8 | 234 | 46 | 6.0 |
| 34S 24E 17DDC 01 | | 52 | 21 | 130 | 56 | 4 | 6.4 | 200 | 36 | 200 |
| 34S 24E 36DB 01 | | 64 | 21 | 38 | 25 | 1 | 2.9 | 182 | 65 | 53 |
| 34S 25E 23AAC 01 | GALENA | 50 | 15 | 23 | 21 | 0.8 | 2.3 | 175 | 46 | 23 |

| LOCAL IDENT-I-FIER | | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) |
|---|---|---|---|---|---|---|---|---|---|
| 32S 23E 06AD 01 | | 1.2 | 0.54 | 0.02 | <0.01 | 5 | 40 | <1 | 10 |
| 33S 23E 13ABB 01 | | 1.4 | 0.21 | 0.01 | <0.01 | 2 | 110 | <1 | <10 |
| 33S 25E 18DAA 01 | | 0.7 | 0.03 | 0.02 | 0.01 | 2 | 60 | <1 | <10 |
| 34S 24E 17DDC 01 | | 0.9 | 0.04 | <0.01 | <0.01 | 2 | 120 | 1 | 10 |
| 34S 24E 36DB 01 | | 0.2 | 0.01 | <0.01 | <0.01 | 2 | 30 | <1 | <10 |
| 34S 25E 23AAC 01 | GALENA | 0.3 | 0.04 | 0.01 | <0.01 | 2 | 60 | <1 | 10 |

| LOCAL IDENT-I-FIER | | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|
| 32S 23E 06AD 01 | | 10 | 110 | <1 | 30 | <0.5 | 6 | <10 | <10 |
| 33S 23E 13ABB 01 | | 10 | 80 | <1 | 10 | <0.5 | 3 | 10 | 10 |
| 33S 25E 18DAA 01 | | 10 | 10 | <1 | <10 | <0.5 | 2 | <10 | 20 |
| 34S 24E 17DDC 01 | | <10 | 80 | 76 | 10 | <0.5 | 4 | <10 | <10 |
| 34S 24E 36DB 01 | | 10 | <10 | <1 | <10 | <0.5 | 2 | 10 | 10 |
| 34S 25E 23AAC 01 | GALENA | <10 | 10 | <1 | 10 | <0.5 | 2 | <10 | 130 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### CHEYENNE COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 05S 38W 22ACB 01 | 393625101342401 | 270.00 | 121OGLL | 84-08-07 | 480 | 7.7 | 15.0 | 170 | 40 |

| LOCAL IDENT-I-FIER | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 05S 38W 22ACB 01 | 17 | 31 | 27 | 1 | 7.0 | 174 | 39 | 11 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 05S 38W 22ACB 01 | 1.4 | 62 | 310 | <0.01 | 4.20 | <0.01 | 20 | 10 |

### CLARK COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 30S 25W 14A 01 | 372614100010101 | -- | | 84-07-05 | 700 | 7.6 | 15.0 | 290 | 81 |
| 31S 23W 07BBA 01 | 372159099520601 | 140.00 | 121OGLL | 84-07-05 | 530 | 7.5 | 15.5 | 190 | -- |
| 32S 23W 26DDD 01 | 371319099464601 | 55.00 | 112PLSC | 84-07-05 | 2500 | 7.5 | 17.5 | 980 | 590 |
| 33S 23W 01DBB 01 | 371140099454801 | -- | 110ALVM | 84-07-05 | 1700 | 7.3 | 17.0 | 850 | 610 |
| 34S 25W 36DC 01 | 370209099585701 | 40.00 | | 84-07-05 | 1310 | 7.3 | 15.0 | 620 | 350 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 30S 25W 14A 01 | 92 | 15 | 25 | 15 | 0.7 | 5.8 | 211 | 42 | 73 |
| 31S 23W 07BBA 01 | 52 | 14 | 48 | 35 | 2 | 4.1 | 231 | 28 | 19 |
| 32S 23W 26DDD 01 | 130 | 160 | 190 | 29 | 3 | 9.7 | 389 | 820 | 200 |
| 33S 23W 01DBB 01 | 210 | 80 | 66 | 14 | 1 | 5.8 | 243 | 440 | 220 |
| 34S 25W 36DC 01 | 160 | 54 | 48 | 14 | 0.9 | 4.6 | 271 | 240 | 130 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 30S 25W 14A 01 | 0.5 | 35 | 420 | 0.30 | 4.50 | <0.01 | 10 | <10 |
| 31S 23W 07BBA 01 | 0.7 | 27 | 330 | 0.28 | 1.40 | <0.01 | 30 | <10 |
| 32S 23W 26DDD 01 | 0.3 | 37 | 1800 | 0.26 | 8.50 | <0.01 | 40 | 10 |
| 33S 23W 01DBB 01 | 0.4 | 34 | 1200 | 0.31 | 1.70 | <0.01 | 10 | 10 |
| 34S 25W 36DC 01 | 0.4 | 42 | 840 | 0.32 | 3.80 | <0.01 | 10 | 10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### CLAY COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 06S 01E 02BAC 01 | 393354097172401 | 60.00 | | 84-07-25 | 773 | 6.7 | 14.0 | 320 | 48 |
| 07S 02E 03CDC 01 | 392802097115601 | -- | | 84-06-26 | 949 | 7.4 | 21.5 | 440 | 18 |
| 07S 04E 20ADC 01 | 392549096595701 | 170.00 | 317BRNS | 84-06-27 | 1340 | 7.1 | 15.0 | 590 | 190 |
| 08S 02E 11ADB 01 | 392230097101401 | 52.00 | 112ALVM | 84-06-26 | 1290 | 7.2 | 17.0 | 570 | 220 |
| 10S 01E 17DCC 01 | 391039097203401 | 110.00 | 211DKOT | 84-06-27 | 306 | 6.5 | 14.5 | 69 | -- |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 06S 01E 02BAC 01 | 100 | 16 | 38 | 20 | 1 | 6.5 | 268 | 140 | 36 |
| 07S 02E 03CDC 01 | 140 | 21 | 26 | 11 | 0.6 | 15 | 418 | 150 | 9.5 |
| 07S 04E 20ADC 01 | 140 | 58 | 43 | 14 | 0.8 | 2.2 | 398 | 260 | 56 |
| 08S 02E 11ADB 01 | 200 | 18 | 30 | 10 | 0.6 | 16 | 351 | 330 | 35 |
| 10S 01E 17DCC 01 | 22 | 3.3 | 11 | 26 | 0.6 | 1.0 | 78 | 230 | 4.5 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 06S 01E 02BAC 01 | 0.2 | 35 | 530 | <0.01 | 0.13 | 0.08 | <230 | 140 |
| 07S 02E 03CDC 01 | 0.3 | -- | -- | <0.01 | 0.50 | 0.07 | 40 | 980 |
| 07S 04E 20ADC 01 | 0.5 | -- | -- | <0.01 | 10.0 | <0.01 | 30 | 20 |
| 08S 02E 11ADB 01 | 0.3 | -- | -- | 0.07 | 6.10 | 0.08 | 10 | 40 |
| 10S 01E 17DCC 01 | 0.2 | -- | -- | <0.01 | 0.44 | <0.01 | 40 | 30 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### CLOUD COUNTY

| LOCAL IDENT-I-FIER | | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 05S 01W 26ABD 01 | | 393538097233201 | 158.00 | 211DKOT | 84-07-25 | 622 | 7.0 | 13.5 | 270 |
| 05S 03W 32ADA 02 | CONCORDIA | 393439097401402 | -- | | 84-07-25 | 1020 | 7.1 | 13.5 | 440 |
| 08S 01W 17DBC 01 | | 392116097270601 | 100.00 | | 84-07-27 | 715 | 7.1 | 14.0 | 250 |
| 08S 05W 14ACD 01 | | 392128097503001 | 41.00 | 112TRRC | 84-07-25 | 2250 | 7.0 | 14.0 | 690 |

| LOCAL IDENT-I-FIER | | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 05S 01W 26ABD 01 | | -- | 90 | 11 | 35 | 22 | 1 | 3.0 | 327 |
| 05S 03W 32ADA 02 | CONCORDIA | -- | 140 | 22 | 58 | 22 | 1 | 14 | 444 |
| 08S 01W 17DBC 01 | | 39 | 76 | 15 | 44 | 27 | 1 | 3.8 | 213 |
| 08S 05W 14ACD 01 | | 170 | 230 | 29 | 260 | 45 | 4 | 6.4 | 522 |

| LOCAL IDENT-I-FIER | | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|
| 05S 01W 26ABD 01 | | 43 | 19 | 0.4 | 27 | 430 | <0.01 | 0.42 | <0.01 |
| 05S 03W 32ADA 02 | CONCORDIA | 110 | 69 | 0.5 | 32 | 710 | <0.01 | 1.20 | 0.03 |
| 08S 01W 17DBC 01 | | 53 | 38 | 0.3 | 19 | 410 | <0.01 | 9.20 | 0.02 |
| 08S 05W 14ACD 01 | | 230 | 380 | 0.4 | 27 | 1500 | <0.01 | 15.0 | 0.11 |

| LOCAL IDENT-I-FIER | | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|
| 05S 01W 26ABD 01 | | <1 | 130 | <1 | 10 | 10 | 70 | <1 | 320 |
| 05S 03W 32ADA 02 | CONCORDIA | 1 | 190 | <1 | 10 | 10 | 80 | <1 | 660 |
| 08S 01W 17DBC 01 | | <1 | 100 | <1 | 10 | 10 | 10 | 13 | 290 |
| 08S 05W 14ACD 01 | | -- | -- | -- | -- | -- | 20 | -- | 30 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

CLOUD COUNTY--Continued

| LOCAL IDENT- I- FIER | | MERCURY DIS- SOLVED (UG/L AS HG) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | ZINC, DIS- SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA- CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA- ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 05S 01W 26ABD 01 | | <0.5 | 1 | 10 | 20 | -- | -- | -- | -- |
| 05S 03W 32ADA 02 | CONCORDIA | <0.5 | <1 | 10 | 10 | 2.9 | ND | ND | ND |
| 08S 01W 17DBC 01 | | <0.5 | 1 | 10 | 20 | -- | -- | -- | -- |
| 08S 05W 14ACD 01 | | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | | CHLOR- DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI- ELDRIN TOTAL (UG/L) | METOLA- CHLOR IN WHOLE WATER (UG/L) | PROPA- CHLOR IN WHOLE WATER (UG/L) | METRI- BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 05S 01W 26ABD 01 | | -- | -- | -- | -- | -- | -- | -- | -- |
| 05S 03W 32ADA 02 | CONCORDIA | ND | ND | ND | ND | ND | ND | ND | ND |
| 08S 01W 17DBC 01 | | -- | -- | -- | -- | -- | -- | -- | -- |
| 08S 05W 14ACD 01 | | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | | LINDANE TOTAL (UG/L) | METH- OXY- CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX- APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 05S 01W 26ABD 01 | | -- | -- | -- | -- | -- | -- | -- | -- |
| 05S 03W 32ADA 02 | CONCORDIA | ND | ND | ND | ND | ND | ND | ND | ND |
| 08S 01W 17DBC 01 | | -- | -- | -- | -- | -- | -- | -- | -- |
| 08S 05W 14ACD 01 | | -- | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### COMANCHE COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 32S 18W 07C 01 | 371608099192101 | 191.00 | | 84-07-06 | 260 | 8.0 | 16.5 | 120 |
| 33S 20W 03BAC 01 | 371213099290201 | 100.00 | 112ALVM | 84-07-05 | 660 | 7.5 | 17.0 | 310 |

| LOCAL IDENT-I-FIER | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 32S 18W 07C 01 | 7 | 40 | 3.9 | 8.0 | 13 | 0.3 | 1.9 | 109 |
| 33S 20W 03BAC 01 | 65 | 92 | 19 | 33 | 19 | 0.9 | 3.2 | 263 |

| LOCAL IDENT-I-FIER | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | ARSENIC DIS-SOLVED (UG/L AS AS) |
|---|---|---|---|---|---|---|---|---|
| 32S 18W 07C 01 | <10 | 3.0 | 0.2 | 22 | 0.32 | 2.70 | <0.01 | -- |
| 33S 20W 03BAC 01 | 84 | 20 | 0.6 | -- | 0.38 | 0.13 | 0.04 | 4 |

| LOCAL IDENT-I-FIER | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MERCURY DIS-SOLVED (UG/L AS HG) |
|---|---|---|---|---|---|---|---|---|
| 32S 18W 07C 01 | -- | -- | -- | -- | <10 | -- | <10 | -- |
| 33S 20W 03BAC 01 | 140 | <1 | <10 | <10 | 40 | <1 | 120 | <0.5 |

| LOCAL IDENT-I-FIER | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) | CHLOR-DANE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 32S 18W 07C 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 33S 20W 03BAC 01 | 2 | 10 | 20 | 0.8 | ND | ND | ND | ND |

| LOCAL IDENT-I-FIER | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 32S 18W 07C 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 33S 20W 03BAC 01 | ND | ND | ND | ND | ND | ND | ND | ND |

| LOCAL IDENT-I-FIER | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|
| 32S 18W 07C 01 | -- | -- | -- | -- | -- | -- | -- |
| 33S 20W 03BAC 01 | ND | ND | ND | ND | ND | ND | ND |

ND Not detected.

## COWLEY COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 32S 03E 07DDD 01 | 371632097075801 | -- | | 84-07-18 | 4330 | 7.3 | 16.0 | 1600 |
| 32S 03E 25BBC 01 | 371633097075801 | 113.00 | | 84-07-18 | 865 | 7.5 | 17.0 | 350 |
| 34S 03E 26BDA 01 | 370359097040501 | 36.00 | 112TRRC | 84-08-30 | 1240 | 7.5 | 15.0 | 300 |
| 34S 04E 35CDC 01 | 370233096573901 | -- | | 84-08-30 | 770 | 7.2 | 15.0 | 410 |

| LOCAL IDENT-I-FIER | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 32S 03E 07DDD 01 | 1000 | 390 | 93 | 510 | 45 | 6 | 4.8 | 308 |
| 32S 03E 25BBC 01 | -- | 83 | 35 | 63 | 28 | 2 | 1.8 | 403 |
| 34S 03E 26BDA 01 | 39 | 88 | 19 | 140 | 50 | 4 | 5.3 | 259 |
| 34S 04E 35CDC 01 | -- | 130 | 20 | 18 | 9 | 0.4 | 2.3 | 439 |

| LOCAL IDENT-I-FIER | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 32S 03E 07DDD 01 | 130 | 1400 | 0.3 | 20 | 2700 | <0.01 | 1.10 | 0.59 |
| 32S 03E 25BBC 01 | 130 | 26 | 0.3 | 20 | 600 | <0.01 | 4.10 | 1.30 |
| 34S 03E 26BDA 01 | 72 | 230 | 0.4 | 12 | 720 | 0.11 | 1.80 | 0.07 |
| 34S 04E 35CDC 01 | 36 | 27 | 0.3 | 21 | 520 | 0.10 | 3.00 | 0.03 |

| LOCAL IDENT-I-FIER | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 32S 03E 07DDD 01 | 22 | 210 | <1 | 20 | 10 | 60 | <1 | 640 |
| 32S 03E 25BBC 01 | -- | -- | -- | -- | -- | 10 | -- | 10 |
| 34S 03E 26BDA 01 | -- | -- | -- | -- | -- | 10 | -- | 490 |
| 34S 04E 35CDC 01 | -- | -- | -- | -- | -- | 10 | -- | 10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### COWLEY COUNTY--Continued

| LOCAL IDENT- I- FIER | MERCURY DIS- SOLVED (UG/L AS HG) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | ZINC, DIS- SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA- CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA- ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 32S 03E 07DDD 01 | <0.5 | 17 | 10 | 10 | 0.5 | ND | ND | ND |
| 32S 03E 25BBC 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 34S 03E 26BDA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 34S 04E 35CDC 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | CHLOR- DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI- ELDRIN TOTAL (UG/L) | METOLA- CHLOR IN WHOLE WATER (UG/L) | PROPA- CHLOR IN WHOLE WATER (UG/L) | METRI- BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 32S 03E 07DDD 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 32S 03E 25BBC 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 34S 03E 26BDA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 34S 04E 35CDC 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | LINDANE TOTAL (UG/L) | METH- OXY- CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX- APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 32S 03E 07DDD 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 32S 03E 25BBC 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 34S 03E 26BDA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 34S 04E 35CDC 01 | -- | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

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## CRAWFORD COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 29S 23E 24ACD 01 | 373026094501801 | -- | 367RBDX | 84-07-09 | 1010 | 7.6 | 23.0 | -- | -- |
| 29S 25E 01ACB 01 | 373308094372001 | -- | | 84-07-10 | 1010 | 7.6 | 22.0 | 230 | 56 |
| 30S 25E 28DDA 01 | 372356094400901 | 1050.00 | 367RBDX | 84-07-09 | 824 | 7.2 | 22.0 | 300 | 76 |

| LOCAL IDENT-I-FIER | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 29S 23E 24ACD 01 | -- | 100 | -- | -- | 7.0 | 334 | 81 | 130 |
| 29S 25E 01ACB 01 | 21 | 120 | 53 | 4 | 5.3 | 326 | 27 | 140 |
| 30S 25E 28DDA 01 | 27 | 56 | 28 | 1 | 5.3 | 334 | 74 | 50 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) |
|---|---|---|---|---|---|---|---|---|
| 29S 23E 24ACD 01 | 0.7 | 0.18 | 0.60 | 0.01 | -- | -- | -- | -- |
| 29S 25E 01ACB 01 | 0.6 | 0.13 | 0.01 | <0.01 | 2 | <100 | <1 | <10 |
| 30S 25E 28DDA 01 | 0.5 | 0.12 | 0.12 | 0.01 | 2 | 80 | <1 | <10 |

| LOCAL IDENT-I-FIER | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|
| 29S 23E 24ACD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29S 25E 01ACB 01 | 10 | <10 | <1 | 10 | <0.5 | 5 | 10 | 10 |
| 30S 25E 28DDA 01 | <10 | 50 | <1 | 10 | <0.5 | 3 | <10 | 10 |

## DECATUR COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 04S 27W 17DAC 01 | 394208100221101 | 165.00 | 121OGLL | 84-08-02 | 450 | 7.4 | 14.5 | 190 | 54 |

| LOCAL IDENT-I-FIER | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 04S 27W 17DAC 01 | 13 | 13 | 13 | 0.4 | 7.1 | 203 | 11 | 6.4 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 04S 27W 17DAC 01 | 0.6 | 56 | 280 | 0.24 | 1.80 | <0.01 | 10 | <10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### DICKINSON COUNTY

| LOCAL IDENTIFIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEOLOGIC UNIT | DATE | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 12S 04E 31AAD 01 | 395812097011101 | 100.00 | 112ALVM | 84-07-31 | 1100 | 7.4 | 15.0 | 490 | 110 |
| 13S 01E 18DCA 02 | 385500097213002 | -- | 110ALVM | 84-07-31 | 1220 | 7.2 | 15.0 | 630 | 320 |
| 14S 03E 35ABA 01 | 384750097034101 | 64.00 | 317SMNR | 84-07-31 | 2740 | 7.2 | 16.0 | 1700 | 1400 |

| LOCAL IDENTIFIER | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY FIELD (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 12S 04E 31AAD 01 | 130 | 41 | 37 | 14 | 0.8 | 2.8 | 385 | 170 | 48 |
| 13S 01E 18DCA 02 | 190 | 38 | 53 | 15 | 1 | 2.9 | 311 | 370 | 58 |
| 14S 03E 35ABA 01 | 560 | 79 | 96 | 11 | 1 | 3.3 | 322 | 1400 | 140 |

| LOCAL IDENTIFIER | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, DISSOLVED (MG/L AS P) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, DISSOLVED (UG/L AS BA) | CADMIUM DISSOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|
| 12S 04E 31AAD 01 | 0.3 | 23 | 680 | <0.01 | 4.40 | 0.07 | -- | -- | -- |
| 13S 01E 18DCA 02 | 0.2 | 29 | 930 | 0.03 | 6.50 | 0.04 | 1 | 50 | <1 |
| 14S 03E 35ABA 01 | 0.5 | 12 | 2300 | <0.01 | 1.20 | 0.06 | -- | -- | -- |

| LOCAL IDENTIFIER | CHROMIUM, DISSOLVED (UG/L AS CR) | COPPER, DISSOLVED (UG/L AS CU) | IRON, DISSOLVED (UG/L AS FE) | LEAD, DISSOLVED (UG/L AS PB) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY DISSOLVED (UG/L AS HG) | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|
| 12S 04E 31AAD 01 | -- | -- | 10 | -- | <10 | -- | -- | -- | -- |
| 13S 01E 18DCA 02 | <10 | 10 | 20 | <1 | <10 | <0.5 | 2 | 10 | 20 |
| 14S 03E 35ABA 01 | -- | -- | 30 | -- | 60 | -- | -- | -- | -- |

### DONIPHAN COUNTY

| LOCAL IDENTIFIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEOLOGIC UNIT | DATE | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 02S 19E 27CBC 01 | 395042095170401 | 72.00 | 112DRFT | 84-05-29 | 467 | 7.4 | 14.0 | 200 | 53 |
| 03S 21E 06BCC 01 | 394912095065101 | 97.00 | 112KGFV | 84-05-29 | 776 | 7.2 | 13.5 | 330 | -- |

| LOCAL IDENTIFIER | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY FIELD (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 02S 19E 27CBC 01 | 60 | 11 | 12 | 12 | 0.4 | 1.0 | 142 | 27 | 7.3 |
| 03S 21E 06BCC 01 | 84 | 29 | 7.0 | 4 | 0.2 | 4.7 | 471 | 34 | 7.7 |

| LOCAL IDENTIFIER | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, DISSOLVED (MG/L AS P) | IRON, DISSOLVED (UG/L AS FE) | MANGANESE, DISSOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 02S 19E 27CBC 01 | 0.3 | 25 | 230 | <0.01 | 10.0 | 0.01 | <10 | 10 |
| 03S 21E 06BCC 01 | 0.5 | 25 | 470 | 0.06 | 6.90 | 0.01 | 10 | 10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

## DOUGLAS COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 11S 18E 34BDA 02 | 390308095240402 | -- | 110ALVM | 84-05-25 | 815 | 6.9 | 15.0 | 430 | 140 |
| 12S 20E 19AAA 01 | 385953095133101 | 60.00 | 112ALVM | 84-05-10 | 775 | 7.1 | 21.5 | -- | -- |
| 13S 21E 05DBB 01 | 385650095055901 | 64.00 | 110ALVM | 84-05-10 | 898 | 7.0 | 14.5 | -- | -- |

| LOCAL IDENT-I-FIER | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| 11S 18E 34BDA 02 | 20 | 10 | 5 | 0.2 | 5.0 | 0 | 45 | 7.8 | 0.3 |
| 12S 20E 19AAA 01 | -- | 8.4 | -- | -- | 6.8 | 442 | 42 | 31 | 0.4 |
| 13S 21E 05DBB 01 | -- | 12 | -- | -- | 5.5 | 493 | 67 | 26 | 0.2 |

| LOCAL IDENT-I-FIER | SILICA, DIS-SOLVED (MG/L AS SIO2) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 11S 18E 34BDA 02 | 36 | 0.39 | 0.04 | 0.10 | 1200 | 660 | -- | -- | -- |
| 12S 20E 19AAA 01 | 35 | 0.25 | 0.59 | 0.01 | -- | -- | -- | -- | -- |
| 13S 21E 05DBB 01 | 36 | 0.53 | 0.04 | <0.01 | -- | -- | 1.2 | ND | ND |

| LOCAL IDENT-I-FIER | ATRA-ZINE, TOTAL (UG/L) | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 11S 18E 34BDA 02 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12S 20E 19AAA 01 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13S 21E 05DBB 01 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

| LOCAL IDENT-I-FIER | LINDANE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 11S 18E 34BDA 02 | -- | -- | -- | -- | -- | -- | -- | -- |
| 12S 20E 19AAA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 13S 21E 05DBB 01 | ND | ND | ND | ND | ND | ND | ND | ND |

ND Not detected.

BEST COPY AVAILABLE

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### EDWARDS COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 24S 18W 25BDC 01 | 375604099151201 | 150.00 | | 84-09-04 | 610 | 7.4 | 20.0 | 260 | 18 |
| 25S 20W 07CAA 01 | 375324099333801 | 125.00 | 112PLSC | 84-08-21 | 660 | 7.8 | 14.5 | 250 | 44 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 24S 15W 25BDC 01 | 88 | 10 | 31 | 20 | 0.9 | 3.1 | 263 | 31 | 21 |
| 25S 20W 07CAA 01 | 74 | 15 | 38 | 25 | 1 | 5.2 | 203 | 50 | 37 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|
| 24S 18W 25BDC 01 | 0.4 | 24 | 350 | <0.01 | 6.10 | 0.01 | -- | -- | -- |
| 25S 20W 07CAA 01 | 0.9 | 43 | 390 | 0.29 | 3.60 | <0.01 | 27 | 220 | <1 |

| LOCAL IDENT-I-FIER | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|
| 24S 18W 25BDC 01 | -- | -- | 30 | -- | 10 | -- | -- | -- | -- |
| 25S 20W 07CAA 01 | <10 | 10 | 20 | <1 | <10 | <0.5 | 1 | 10 | 10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

## ELLIS COUNTY

| LOCAL IDENT- I- FIER | | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 13S 18W 03CCD 01 | | 385128099185601 | 41.00 | | 84-08-10 | 1080 | 7.4 | 14.0 | 390 |
| 14S 18W 25AAB 01 | | 384845099160401 | 28.00 | 112TRRC | 84-08-09 | 1180 | 7.4 | 13.0 | 530 |
| 15S 18W 28CAC 01 | HAYS | 384305099195401 | -- | | 84-08-10 | 1730 | 7.2 | 14.5 | 810 |

| LOCAL IDENT- I- FIER | | HARD- NESS, NONCAR- BONATE (MG/L CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 13S 18W 03CCD 01 | | 130 | 130 | 16 | 97 | 35 | 2 | 6.4 | 263 |
| 14S 18W 25AAB 01 | | 210 | 180 | 20 | 45 | 15 | 0.9 | 12 | 320 |
| 15S 18W 28CAC 01 | HAYS | 590 | 260 | 38 | 94 | 20 | 2 | 14 | 219 |

| LOCAL IDENT- I- FIER | | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|
| 13S 18W 03CCD 01 | | 200 | 86 | 0.4 | 43 | 740 | 0.10 | 1.50 | <0.01 |
| 14S 18W 25AAB 01 | | 220 | 62 | 0.3 | 34 | 770 | 0.07 | 7.30 | <0.01 |
| 15S 18W 28CAC 01 | HAYS | 550 | 160 | 0.5 | 23 | 1300 | 0.28 | 0.04 | <0.01 |

| LOCAL IDENT- I- FIER | | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA- CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA- ZINE, TOTAL (UG/L) | CHLOR- DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 13S 18W 03CCD 01 | | 20 | 110 | 1.8 | ND | ND | ND | ND | ND |
| 14S 18W 25AAB 01 | | 50 | 10 | 1.9 | ND | ND | ND | ND | ND |
| 15S 18W 28CAC 01 | HAYS | 2100 | 480 | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | | P,P' DDT, TOTAL (UG/L) | DI- ELDRIN TOTAL (UG/L) | METOLA- CHLOR IN WHOLE WATER (UG/L) | PROPA- CHLOR IN WHOLE WATER (UG/L) | METRI- BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 13S 18W 03CCD 01 | | ND | ND | ND | ND | ND | ND | ND |
| 14S 18W 25AAB 01 | | ND | ND | ND | ND | ND | ND | ND |
| 15S 18W 28CAC 01 | HAYS | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | | METH- OXY- CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX- APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 13S 18W 03CCD 01 | | ND | ND | ND | ND | ND | ND | ND |
| 14S 18W 25AAB 01 | | ND | ND | ND | ND | ND | ND | ND |
| 15S 18W 28CAC 01 | HAYS | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### ELLSWORTH COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | HARD- NESS, NONCAR- BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 15S 08W 19BCD 01 | 384401098153001 | -- | 112TRRC | 84-07-11 | 1110 | 7.2 | 14.0 | 420 | 100 |
| 17S 09W 16DAB 01 | 383420098185701 | 210.00 | 211DKOT | 84-07-11 | 745 | 7.3 | 15.5 | 270 | 28 |

| LOCAL IDENT- I- FIER | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 15S 08W 19BCD 01 | 140 | 16 | 73 | 27 | 2 | 7.6 | 323 | 160 | 91 |
| 17S 09W 16DAB 01 | 84 | 14 | 56 | 31 | 2 | 2.8 | 239 | 15 | 70 |

| LOCAL IDENT- I- FIER | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | CADMIUM DIS- SOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|
| 15S 08W 19BCD 01 | 0.6 | 32 | 720 | 0.31 | 0.22 | <0.01 | -- | -- | -- |
| 17S 09W 16DAB 01 | 0.5 | 33 | 420 | 0.25 | 0.03 | <0.01 | 4 | 80 | <1 |

| LOCAL IDENT- I- FIER | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) | MERCURY DIS- SOLVED (UG/L AS HG) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | ZINC, DIS- SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|
| 15S 08W 19BCD 01 | -- | -- | 910 | -- | 340 | -- | -- | -- | -- |
| 17S 09W 16DAB 01 | <10 | <10 | 360 | <1 | 160 | <0.5 | <1 | <10 | <10 |

### FINNEY COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | HARD- NESS, NONCAR- BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 21S 32W 08ABD 01 | 381453100511001 | 155.00 | 121OGLL | 84-07-03 | 2000 | 7.2 | 14.5 | 790 | 490 |
| 23S 31W 03DCC 01 | 380435100423201 | 180.00 | 121OGLL | 84-06-26 | 1350 | 7.4 | 14.0 | 420 | 220 |
| 23S 33W 17BBB 01 | 380339100582401 | 340.00 | 121OGLL | 84-06-26 | 1180 | 7.6 | 15.5 | 500 | 330 |
| 24S 33W 07ACA 02 | 375904100584902 | -- |  | 84-06-26 | 685 | 7.8 | 15.0 | 170 | -- |

| LOCAL IDENT- I- FIER | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 21S 32W 08ABD 01 | 170 | 88 | 150 | 29 | 2 | 10 | 292 | 630 | 120 |
| 23S 31W 03DCC 01 | 110 | 35 | 50 | 20 | 1 | 7.1 | 194 | 160 | 120 |
| 23S 33W 17BBB 01 | 120 | 48 | 49 | 17 | 1 | 6.4 | 170 | 340 | 74 |
| 24S 33W 07ACA 02 | 30 | 23 | 40 | 33 | 1 | 4.1 | 170 | 160 | 17 |

| LOCAL IDENT- I- FIER | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 21S 32W 08ABD 01 | 2.1 | 67 | 1400 | 0.31 | 9.00 | <0.01 | 30 | <10 |
| 23S 31W 03DCC 01 | 1.5 | 56 | 660 | 0.42 | 6.40 | <0.01 | 20 | <10 |
| 23S 33W 17BBB 01 | 0.8 | 28 | 770 | 0.36 | 4.50 | <0.01 | 30 | <10 |
| 24S 33W 07ACA 02 | 0.7 | 22 | 400 | <0.01 | 2.40 | 0.01 | <60 | <10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### FORD COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 26S 24W 29ACA 01 | 374515099573001 | 260.00 | | 84-09-20 | 430 | 7.3 | 16.0 | 220 | 22 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 26S 24W 29ACA 01 | 50 | 23 | 9.6 | 9 | 0.3 | 4.0 | 198 | 20 | 6.8 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 26S 24W 29ACA 01 | 2.4 | 61 | 300 | 0.04 | 1.20 | <0.01 | 10 | <10 |

### GEARY COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 12S 05E 01BBA 03 | 390238096494403 | 53.00 | 112ALVM | 84-06-27 | 710 | 7.4 | 12.0 | 240 |

| LOCAL IDENT-I-FIER | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 12S 05E 01BBA 03 | 5 | 72 | 14 | 45 | 28 | 1 | 9.5 | 232 |

| LOCAL IDENT-I-FIER | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 12S 05E 01BBA 03 | 100 | 39 | 0.3 | <0.01 | 0.11 | 0.11 | E20 | 670 |

E Estimated value.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### GOVE COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 11S 26W 04DCA 01 | 390716100122901 | | 84-09-24 | 620 | 7.0 | 14.0 | 310 | 52 | 90 |
| 15S 29W 13CAB 01 | 384500100294101 | | 84-09-24 | 1500 | 7.1 | 15.0 | 720 | 530 | 180 |

| LOCAL IDENT-I-FIER | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 11S 26W 04DCA 01 | 21 | 14 | 9 | 0.4 | 5.4 | 259 | 46 | 21 |
| 15S 29W 13CAB 01 | 65 | 73 | 18 | 1 | 19 | 190 | 620 | 26 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 11S 26W 04DCA 01 | 0.5 | 43 | 400 | 0.07 | 4.70 | <0.01 | 180 | 10 |
| 15S 29W 13CAB 01 | 1.3 | 45 | 1100 | 0.99 | 0.02 | <0.01 | 4900 | 370 |

### GRAHAM COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 21W 02BCC 03 | 392829099381603 | 100.00 | 121OGLL | 84-08-08 | 1680 | 7.3 | 13.0 | 550 | 200 |
| 08S 21W 17ACB 01 | 392138099410501 | 55.00 | 112CRET | 84-08-08 | 1110 | 7.4 | 13.0 | 510 | 260 |
| 08S 25W 14DCC 01 | 392104100044401 | 72.00 | 112ALVM | 84-08-08 | 1040 | 7.6 | 12.0 | 440 | 180 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 21W 02BCC 03 | 170 | 30 | 140 | 34 | 3 | 30 | 352 | 220 | 120 |
| 08S 21W 17ACB 01 | 170 | 20 | 36 | 13 | 0.7 | 12 | 243 | 220 | 90 |
| 08S 25W 14DCC 01 | 130 | 29 | 56 | 21 | 1 | 12 | 263 | 150 | 92 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 07S 21W 02BCC 03 | 0.7 | 30 | 950 | 0.10 | 11.0 | <0.01 | 110 | 20 |
| 08S 21W 17ACB 01 | 0.3 | 42 | 740 | 0.09 | 2.80 | 0.03 | 20 | 30 |
| 08S 25W 14DCC 01 | 0.7 | 33 | 670 | 0.20 | 0.21 | <0.01 | 2000 | 250 |

## QUALITY OF GROUND WATER

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### GRANT COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 28S 37W 30BBD 01 | 373516101245001 | 285.00 | 121OGLL | 84-06-29 | 950 | 7.6 | 18.0 | 370 | 200 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 28S 37W 30BBD 01 | 83 | 40 | 59 | 25 | 1 | 5.1 | 170 | 270 | 32 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 28S 37W 30BBD 01 | 1.8 | 30 | 620 | 0.37 | 3.40 | <0.01 | <10 | <10 |

### GRAY COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 24S 29W 19BBB 01 | 375723100331301 | -- | | 84-09-20 | 750 | 7.4 | 16.0 | 320 | 150 |
| 26S 27W 17CCA 01 | 374654100180001 | -- | | 84-09-20 | 1300 | 7.3 | 15.0 | 550 | 320 |
| 27S 28W 05AAA 01 | 374411100235101 | 228.00 | 121OGLL | 84-09-20 | 500 | 7.2 | 16.0 | 200 | 14 |
| 29S 28W 28CDC 01 | 372922100232701 | 204.00 | 121OGLL | 84-09-20 | 435 | 7.5 | 16.0 | 190 | 20 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 24S 29W 19BBB 01 | 72 | 35 | 35 | 19 | 0.9 | 6.3 | 170 | 140 | 40 |
| 26S 27W 17CCA 01 | 160 | 36 | 62 | 20 | 1 | 5.6 | 231 | 350 | 16 |
| 27S 28W 05AAA 01 | 62 | 10 | 20 | 19 | 0.6 | 4.1 | 182 | 39 | 9.1 |
| 29S 28W 28CDC 01 | 58 | 12 | 17 | 16 | 0.6 | 3.7 | 174 | 64 | 11 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 24S 29W 19BBB 01 | 1.7 | 44 | 490 | 0.08 | 4.60 | 0.03 | 20 | 10 |
| 26S 27W 17CCA 01 | 1.0 | 32 | 800 | 0.05 | 18.0 | <0.01 | 20 | 10 |
| 27S 28W 05AAA 01 | 0.4 | 28 | 280 | 0.06 | 4.20 | <0.01 | 20 | <10 |
| 29S 28W 28CDC 01 | 0.5 | 25 | 300 | 0.37 | 3.60 | <0.01 | 10 | 10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### GREELEY COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | HARD- NESS, NONCAR- BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 17S 40W 15CCB 01 | 383418101435701 | 200.00 | 121OGLL | 84-08-07 | 555 | 7.5 | 15.5 | 210 | 76 |

| LOCAL IDENT- I- FIER | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 17S 40W 15CCB 01 | 52 | 20 | 29 | 22 | 0.9 | 4.2 | 138 | 83 | 23 |

| LOCAL IDENT- I- FIER | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 17S 40W 15CCB 01 | 1.2 | 46 | 340 | 0.01 | 4.00 | <0.01 | 30 | <10 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

HAMILTON COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 23S 42W 19CBB 01 | 380210101584801 | 74.00 | 112ALVM | 84-07-09 | 5200 | 7.5 | 16.0 | 1900 |
| 23S 42W 25CCB 01 | 380105101531901 | -- | | 84-09-19 | 6000 | 6.9 | 14.0 | 2100 |
| 24S 39W 30BBD 01 | 375624101385301 | 22.00 | 112ALVM | 84-07-09 | 2800 | 7.6 | 14.0 | 1000 |
| 24S 40W 19BBC 01 | 375716101453401 | -- | | 84-07-02 | 540 | 8.1 | 16.5 | 230 |

| LOCAL IDENT-I-FIER | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 23S 42W 19CBB 01 | 1600 | 490 | 170 | 660 | 42 | 7 | 26 | 364 |
| 23S 42W 25CCB 01 | 1700 | 540 | 180 | 830 | 46 | 8 | 17 | 389 |
| 24S 39W 30BBD 01 | 790 | 260 | 92 | 320 | 40 | 4 | 7.6 | 235 |
| 24S 40W 19BBC 01 | 84 | 74 | 11 | 30 | 22 | 0.9 | 3.8 | 166 |

| LOCAL IDENT-I-FIER | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 23S 42W 19CBB 01 | 2500 | 260 | 0.9 | -- | -- | 0.43 | 6.10 | <0.01 |
| 23S 42W 25CCB 01 | 3000 | 460 | 0.5 | 33 | 5300 | 0.06 | 4.40 | <0.01 |
| 24S 39W 30BBD 01 | >1400 | 90 | 0.8 | 15 | -- | 0.36 | 2.80 | <0.01 |
| 24S 40W 19BBC 01 | 96 | 8.9 | 0.3 | -- | -- | 0.44 | 3.00 | <0.01 |

| LOCAL IDENT-I-FIER | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 23S 42W 19CBB 01 | 16 | 20 | <1 | 10 | 20 | 30 | <1 | 20 |
| 23S 42W 25CCB 01 | 39 | 70 | <1 | 20 | 10 | 50 | <5 | 190 |
| 24S 39W 30BBD 01 | -- | -- | -- | -- | -- | 10 | -- | 10 |
| 24S 40W 19BBC 01 | 2 | 40 | 1 | <10 | <10 | <10 | <1 | 10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### HAMILTON COUNTY--Continued

| LOCAL IDENT- I- FIER | MERCURY DIS- SOLVED (UG/L AS HG) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | ZINC, DIS- SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA- CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA- ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 23S 42W 19CBB 01 | <0.5 | 27 | 10 | 40 | 5.8 | ND | ND | ND |
| 23S 42W 25CCB 01 | <0.5 | 29 | 10 | 20 | -- | -- | -- | -- |
| 24S 39W 30BBD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 24S 40W 19BBC 01 | <0.5 | 2 | <10 | 20 | 0.4 | ND | ND | ND |

| LOCAL IDENT- I- FIER | CHLOR- DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI- ELDRIN TOTAL (UG/L) | METOLA- CHLOR IN WHOLE WATER (UG/L) | PROPA- CHLOR IN WHOLE WATER (UG/L) | METRI- BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 23S 42W 19CBB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 23S 42W 25CCB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 24S 39W 30BBD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 24S 40W 19BBC 01 | ND | ND | ND | ND | ND | ND | ND | ND |

| LOCAL IDENT- I- FIER | LINDANE TOTAL (UG/L) | METH- OXY- CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX- APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 23S 42W 19CBB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 23S 42W 25CCB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 24S 39W 30BBD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 24S 40W 19BBC 01 | ND | ND | ND | ND | ND | ND | ND | ND |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### HARPER COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 32S 07W 02CDA 01 | 371706098025801 | 80.00 | 111CLVM | 84-08-09 | 590 | 7.6 | 15.5 | 210 |
| 32S 08W 20BCB 01 | 371455098130401 | -- | 112WSCS | 84-08-09 | 770 | 6.9 | 17.0 | 260 |

| LOCAL IDENT-I-FIER | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 32S 07W 02CDA 01 | -- | 65 | 12 | 46 | 32 | 1 | 1.6 | 239 |
| 32S 08W 20BCB 01 | 110 | 78 | 16 | 50 | 29 | 1 | 1.5 | 154 |

| LOCAL IDENT-I-FIER | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) |
|---|---|---|---|---|---|---|---|
| 32S 07W 02CDA 01 | 33 | 21 | 0.3 | 19 | 340 | 0.04 | 4.80 |
| 32S 08W 20BCB 01 | 46 | 120 | 0.2 | 26 | 430 | 0.02 | 2.70 |

| LOCAL IDENT-I-FIER | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) |
|---|---|---|---|---|---|---|---|
| 32S 07W 02CDA 01 | <0.04 | -- | -- | -- | -- | -- | 10 |
| 32S 08W 20BCB 01 | <0.08 | 8 | 50 | <1 | <10 | 50 | 10 |

| LOCAL IDENT-I-FIER | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) |
|---|---|---|---|---|---|---|---|
| 32S 07W 02CDA 01 | -- | 10 | -- | -- | -- | -- | -- |
| 32S 08W 20BCB 01 | <1 | 60 | <0.5 | 2 | <10 | 80 | 0.9 |

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## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### HARVEY COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 22S 01W 15AA 02 | 380835097311102 | -- | | 84-08-14 | 577 | 7.4 | 14.0 | 240 | -- |
| 23S 01W 32BBC 01 | 380041097273701 | 133.00 | 112PLSC | 84-08-10 | 397 | 6.8 | 15.0 | 150 | -- |
| 23S 03W 29DBD 02 | 380107097400902 | -- | | 84-08-10 | 888 | 6.9 | 16.5 | 240 | 50 |
| 24S 03W 26ADA 01 | 375613097363101 | -- | | 84-08-14 | 1300 | 7.4 | 17.0 | 470 | 130 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 22S 01W 15AA 02 | 80 | 9.2 | 26 | 19 | 0.8 | 1.1 | 244 | 32 | 39 |
| 23S 01W 32BBC 01 | 50 | 6.8 | 20 | 22 | 0.7 | 1.4 | 168 | 19 | 5.2 |
| 23S 03W 29DBD 02 | 68 | 17 | 66 | 37 | 2 | 6.8 | 190 | 76 | 99 |
| 24S 03W 26ADA 01 | 140 | 29 | 100 | 32 | 2 | 3.4 | 344 | 310 | 77 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 22S 01W 15AA 02 | 0.2 | 28 | 360 | 0.04 | 2.40 | 0.04 | 10 | <10 |
| 23S 01W 32BBC 01 | 0.2 | 26 | 230 | <0.01 | 3.30 | 0.19 | 10 | 10 |
| 23S 03W 29DBD 02 | 0.2 | 24 | 470 | <0.01 | 4.20 | 0.07 | <10 | 30 |
| 24S 03W 26ADA 01 | 0.5 | 18 | 890 | 0.04 | 0.04 | <0.01 | 1600 | 180 |

### HASKELL COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 27S 32W 06CBB 01 | 374343100520801 | 298.00 | 121OGLL | 84-06-28 | 380 | 7.8 | 18.0 | 160 | 14 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 27S 32W 06CBB 01 | 51 | 7.9 | 17 | 19 | 0.6 | 2.4 | 146 | 38 | 1.6 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 27S 32W 06CBB 01 | 0.4 | 26 | 230 | 0.36 | 2.10 | <0.01 | 10 | <10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### HODGEMAN COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | HARD- NESS, NONCAR- BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 21S 22W 04BDD 01 | 381516099443401 | -- | | 84-09-25 | 1020 | 7.2 | 14.5 | 510 | 270 |
| 23S 23W 06CAB 01 | 380445099533401 | 395.00 | 211DKOT | 84-07-10 | 1040 | 7.4 | 16.5 | 480 | 270 |

| LOCAL IDENT- I- FIER | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 21S 22W 04BDD 01 | 180 | 14 | 18 | 7 | 0.4 | 5.5 | 235 | 85 | 120 |
| 23S 23W 06CAB 01 | 160 | 20 | 39 | 15 | 0.8 | 5.5 | 215 | 240 | 79 |

| LOCAL IDENT- I- FIER | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 21S 22W 04BDD 01 | 0.2 | 40 | 600 | 0.04 | 13.0 | 0.03 | 50 | 10 |
| 23S 23W 06CAB 01 | 0.6 | 28 | 700 | 0.35 | 0.03 | 0.07 | 660 | 200 |

### JACKSON COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | HARD- NESS, NONCAR- BONATE (MG/L CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 05S 16E 10BBA 01 | 393815095365901 | | 84-05-24 | 518 | 6.9 | 13.5 | 340 | 100 | 110 |

| LOCAL IDENT- I- FIER | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 05S 16E 10BBA 01 | 17 | 16 | 9 | 0.4 | 0.6 | 240 | 30 | 5.2 |

| LOCAL IDENT- I- FIER | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 05S 16E 10BBA 01 | 0.2 | 20 | 340 | 0.02 | 3.60 | 0.10 | 30 | <10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

## JEFFERSON COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 19E 29BBD 01 | 392502095193501 | 179.00 | 112KGFV | 84-05-23 | 700 | 7.2 | 14.5 | 290 | 78 |
| 08S 19E 26CDA 01 | 391915095155401 | -- | 322TCMS | 84-05-23 | 903 | 7.2 | 14.0 | 340 | 90 |
| 11S 16E 13CBD 01 | 390525095352701 | 78.00 | 112NWMN | 84-05-11 | 555 | 6.9 | 14.5 | -- | -- |

| LOCAL IDENT- I- FIER | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 19E 29BBD 01 | 24 | 28 | 17 | 0.7 | 1.9 | 403 | 22 | 6.4 | 0.4 |
| 08S 19E 26CDA 01 | 28 | 51 | 25 | 1 | 0.9 | 410 | 27 | 31 | 0.4 |
| 11S 16E 13CBD 01 | -- | 16 | -- | -- | 1.7 | 285 | 49 | 22 | 0.21 |

| LOCAL IDENT- I- FIER | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA- CHLOR TOTAL RECOVER (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 19E 29BBD 01 | 29 | 430 | 0.02 | 0.07 | 0.01 | 330 | 160 | <0.1 | ND |
| 08S 19E 26CDA 01 | 31 | 510 | 0.05 | 32.0 | <0.01 | 10 | 10 | -- | -- |
| 11S 16E 13CBD 01 | 27 | -- | <0.01 | 7.10 | 0.11 | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | ALDRIN, TOTAL (UG/L) | ATRA- ZINE, TOTAL (UG/L) | CHLOR- DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI- ELDRIN TOTAL (UG/L) | METOLA- CHLOR IN WHOLE WATER (UG/L) | PROPA- CHLOR IN WHOLE WATER (UG/L) | METRI- BUZIN IN WHOLE WATER (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 19E 29BBD 01 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 08S 19E 26CDA 01 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11S 16E 13CBD 01 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | ENDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | METH- OXY- CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX- APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 19E 29BBD 01 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 08S 19E 26CDA 01 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11S 16E 13CBD 01 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

JEWELL COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 02S 09W 23BAC 01 | 395209098180001 | 62.00 | 112ALVM | 84-07-26 | 1210 | 6.7 | 13.5 | 620 |
| 03S 06W 21CAB 01 | 394636098002001 | 50.00 | 112ALVM | 84-07-26 | 1540 | 7.0 | 16.0 | 620 |

| LOCAL IDENT-I-FIER | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 02S 09W 23BAC 01 | 260 | 200 | 30 | 47 | 14 | 0.9 | 14 | 364 |
| 03S 06W 21CAB 01 | 180 | 210 | 24 | 170 | 37 | 3 | 5.2 | 447 |

| LOCAL IDENT-I-FIER | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 02S 09W 23BAC 01 | 430 | 18 | 0.3 | 35 | 990 | 0.07 | 2.80 | 0.16 |
| 03S 06W 21CAB 01 | 370 | 120 | 0.3 | 28 | 1200 | <0.01 | 25.0 | 0.02 |

| LOCAL IDENT-I-FIER | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 02S 09W 23BAC 01 | 3 | 50 | 4 | 10 | <10 | <10 | <1 | 1000 |
| 03S 06W 21CAB 01 | -- | -- | -- | -- | -- | 20 | -- | 20 |

| LOCAL IDENT-I-FIER | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 02S 09W 23BAC 01 | <0.5 | 30 | 10 | 80 | 1.5 | ND | ND | ND |
| 03S 06W 21CAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 02S 09W 23BAC 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 03S 06W 21CAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | LINDANE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 02S 09W 23BAC 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 03S 06W 21CAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

BEST COPY AVAILABLE

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

## JOHNSON COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 12S 22E 25BBC 01 | 385853094532001 |  | 84-05-31 | 917 | 7.1 | 14.5 | 370 | 47 | 130 |

| LOCAL IDENT-I-FIER | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 12S 22E 25BBC 01 | 11 | 30 | 15 | 0.7 | 5.8 | 323 | 96 | 46 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 12S 22E 25BBC 01 | 0.2 | 28 | 540 | 0.47 | 0.56 | <0.01 | 2600 | 360 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

## KEARNY COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | HARD- NESS, NONCAR- BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 21S 37W 02CDC 01 | 381458101211001 | 134.00 | 121OGLL | 84-06-28 | 760 | 7.9 | 16.0 | 260 | 52 |
| 23S 35W 24CCB 01 | 380206101071301 | -- | | 84-09-19 | 1280 | 7.1 | 16.5 | 630 | 480 |
| 24S 35W 23BCC 01 | 375711101081901 | -- | | 84-09-19 | 3550 | 6.9 | 14.0 | 1300 | 1100 |
| 24S 36W 16BAD 01 | 375814101164301 | -- | 112PCPC | 84-06-28 | 400 | 7.9 | 16.5 | 160 | 10 |
| 25S 36W 28BBD 01 | 375115101165801 | 362.00 | 121OGLL | 84-09-19 | 825 | 7.4 | 17.0 | 360 | 240 |

| LOCAL IDENT- I- FIER | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 21S 37W 02CDC 01 | 51 | 31 | 55 | 31 | 2 | 7.2 | 203 | 110 | 31 |
| 23S 35W 24CCB 01 | 180 | 44 | 43 | 13 | 0.8 | 6.8 | 148 | 440 | 70 |
| 24S 35W 23BCC 01 | 310 | 130 | 400 | 40 | 5 | 12 | 211 | 1700 | 140 |
| 24S 36W 16BAD 01 | 36 | 17 | 19 | 20 | 0.7 | 4.2 | 150 | 30 | 5.8 |
| 25S 36W 28BBD 01 | 110 | 21 | 29 | 15 | 0.7 | 3.4 | 117 | 240 | 28 |

| LOCAL IDENT- I- FIER | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | CADMIUM DIS- SOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|
| 21S 37W 02CDC 01 | 1.8 | 55 | 460 | 0.40 | 5.70 | <0.01 | -- | -- | -- |
| 23S 35W 24CCB 01 | 0.4 | 26 | 900 | 0.06 | 3.50 | <0.01 | -- | -- | -- |
| 24S 35W 23BCC 01 | 1.5 | 20 | 2800 | 0.06 | 7.10 | <0.01 | -- | -- | -- |
| 24S 36W 16BAD 01 | 1.2 | 20 | 220 | 0.46 | 3.20 | <0.01 | -- | -- | -- |
| 25S 36W 28BBD 01 | 0.4 | 19 | 520 | 0.06 | 4.20 | <0.01 | 6 | 100 | <1 |

| LOCAL IDENT- I- FIER | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) | MERCURY DIS- SOLVED (UG/L AS HG) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | ZINC, DIS- SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|
| 21S 37W 02CDC 01 | -- | -- | <10 | -- | <10 | -- | -- | -- | -- |
| 23S 35W 24CCB 01 | -- | -- | 10 | -- | 10 | -- | -- | -- | -- |
| 24S 35W 23BCC 01 | -- | -- | 30 | -- | 10 | -- | -- | -- | -- |
| 24S 36W 16BAD 01 | -- | -- | <10 | -- | <10 | -- | -- | -- | -- |
| 25S 36W 28BBD 01 | <10 | <10 | 10 | <5 | <10 | <0.5 | 3 | <10 | <10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### KINGMAN COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 27S 10W 32DCC 01 | 373846098255701 | 60.00 | 112GDID | 84-08-22 | 475 | 7.7 | 16.5 | 230 | 42 |
| 30S 05W 12DDC 01 | 372653097483601 | -- | 112PLSC | 84-08-08 | 420 | 6.7 | 17.5 | 110 | 25 |
| 30S 09W 10ADC 01 | 372658098170301 | 82.00 | 112PLSC | 84-08-09 | 485 | 7.1 | 16.0 | 200 | 43 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 27S 10W 32DCC 01 | 82 | 6.7 | 12 | 10 | 0.4 | 1.3 | 190 | 14 | 12 |
| 30S 05W 12DDC 01 | 30 | 8.4 | 21 | 29 | 0.9 | 2.0 | 85 | <10 | 31 |
| 30S 09W 10ADC 01 | 68 | 7.6 | 17 | 15 | 0.5 | 1.1 | 158 | 20 | 9.3 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 27S 10W 32DCC 01 | 0.4 | 22 | 260 | 0.06 | 8.60 | 0.01 | 10 | <10 |
| 30S 05W 12DDC 01 | 0.3 | 29 | -- | 0.04 | 5.50 | 0.11 | <10 | <10 |
| 30S 09W 10ADC 01 | 0.3 | 22 | 240 | 0.05 | 11.0 | <0.01 | 10 | <10 |

### KIOWA COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 28S 18W 19CCB 01 | 373517099201701 | 134.00 | 112PLSC | 84-08-08 | 510 | 7.6 | 15.5 | 220 | 12 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 28S 18W 19CCB 01 | 74 | 8.2 | 18 | 15 | 0.6 | 3.3 | 207 | 21 | 14 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 28S 18W 19CCB 01 | 0.3 | 26 | 290 | <0.01 | 3.80 | <0.01 | 10 | <10 |

## LANE COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 18S 29W 13DBA 01 | 382918100281601 | | 84-07-03 | 550 | 7.7 | 14.0 | 270 | 51 | 62 |
| 18S 29W 13DBA 01 | 382918100281601 | | 84-09-24 | 565 | 8.4 | 14.5 | 260 | 15 | 52 |

| LOCAL IDENT-I-FIER | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 18S 29W 13DBA 01 | 29 | 15 | 10 | 0.4 | 7.0 | 223 | 38 | 17 |
| 18S 29W 13DBA 01 | 32 | 15 | 11 | 0.4 | 6.8 | 247 | 36 | 19 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 18S 29W 13DBA 01 | 4.2 | 80 | 390 | 0.32 | 1.90 | <0.01 | 20 | <10 |
| 18S 29W 13DBA 01 | 4.2 | 80 | 390 | 0.27 | 2.00 | <0.01 | 10 | 10 |

## LEAVENWORTH COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 08S 21E 19BAA 01 | 392047095065601 | 60.00 | 322DGLS | 84-05-24 | 579 | 7.2 | 15.5 | 220 | 70 |

| LOCAL IDENT-I-FIER | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 08S 21E 19BAA 01 | 12 | 17 | 14 | 0.5 | 2.0 | 234 | 29 | 42 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 08S 21E 19BAA 01 | 0.3 | 32 | 350 | 1.20 | 0.09 | 0.05 | 20 | 20 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### LINCOLN COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | HARD- NESS, NONCAR- BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 10S 07W 12ACA 01 | 391201098024901 | 100.00 | 2110KOT | 84-08-07 | 1450 | 7.4 | 14.5 | 350 | -- |
| 12S 06W 15AAC 01 | 390048097580801 | 60.00 | 112ALVM | 84-08-07 | 1620 | 7.0 | 20.0 | 690 | 210 |
| 12S 07W 06AAA 01 | 390239098075901 | -- | | 84-08-07 | 1800 | 7.4 | 14.0 | 740 | 300 |
| 12S 10W 21000 01 | 385918098254801 | -- | | 84-08-07 | 1450 | 7.4 | 24.0 | 520 | 63 |

| LOCAL IDENT- I- FIER | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 10S 07W 12ACA 01 | 110 | 19 | 190 | 53 | 5 | 5.3 | 542 | 170 | 110 |
| 12S 06W 15AAC 01 | 230 | 28 | 94 | 23 | 2 | 5.9 | 480 | 200 | 160 |
| 12S 07W 06AAA 01 | 260 | 22 | 130 | 28 | 2 | 2.4 | 439 | 420 | 140 |
| 12S 10W 21000 01 | 150 | 35 | 110 | 31 | 2 | 4.1 | 456 | 240 | 120 |

| LOCAL IDENT- I- FIER | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 10S 07W 12ACA 01 | 0.2 | 44 | 980 | 0.45 | 0.01 | 0.19 | 3900 | 320 |
| 12S 06W 15AAC 01 | 0.2 | 36 | 1000 | <0.01 | 2.60 | 0.08 | 60 | 410 |
| 12S 07W 06AAA 01 | 0.3 | 32 | 1300 | <0.01 | 0.33 | <0.01 | 40 | <10 |
| 12S 10W 21000 01 | 0.3 | 23 | 960 | <0.01 | 2.20 | 0.01 | 30 | 10 |

### LOGAN COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | HARD- NESS, NONCAR- BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 11S 32W 03ADB 01 | 390743100510601 | -- | 1210GLL | 84-07-05 | 550 | 7.7 | 15.5 | 250 | 52 |
| 11S 36W 06DBB 01 | 390735101212401 | 284.00 | 1210GLL | 84-07-06 | 510 | 7.5 | 15.5 | 250 | 81 |
| 13S 35W 23ACD 01 | 385441101102001 | 25.00 | 112ALVM | 84-07-06 | 1750 | 7.2 | 20.0 | 690 | 530 |
| 13S 36W 20CCB 02 | 385421101210002 | 32.00 | 112ALVM | 84-07-06 | 2250 | 7.2 | 13.5 | 850 | 620 |

| LOCAL IDENT- I- FIER | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 11S 32W 03ADB 01 | 69 | 20 | 14 | 10 | 0.4 | 6.2 | 203 | 26 | 20 |
| 11S 36W 06DBB 01 | 84 | 9.9 | 14 | 11 | 0.4 | 6.4 | 170 | 32 | 18 |
| 13S 35W 23ACD 01 | 180 | 58 | 120 | 27 | 2 | 11 | 158 | 520 | 160 |
| 13S 36W 20CCB 02 | 250 | 56 | 210 | 34 | 3 | 16 | 235 | 1000 | 73 |

| LOCAL IDENT- I- FIER | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 11S 32W 03ADB 01 | 0.4 | 30 | 310 | 0.42 | 5.80 | <0.01 | 10 | <10 |
| 11S 36W 06DBB 01 | 0.5 | 26 | 290 | 0.39 | 11.0 | 0.01 | 20 | <10 |
| 13S 35W 23ACD 01 | 0.7 | 36 | 1200 | 0.44 | 5.30 | <0.01 | 10 | 10 |
| 13S 36W 20CCB 02 | 0.8 | 26 | 1800 | 0.44 | 1.00 | <0.01 | 50 | 900 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

MCPHERSON COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACC3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 17S 03W 17DBD 01 | 383413097402001 | 86.00 | 112ALVM | 84-08-08 | 1700 | 7.2 | 19.5 | -- | -- |
| 17S 05W 23DAB 01 | 383328097500901 | 41.00 | 112ALVM | 84-08-08 | 1080 | 7.4 | 16.0 | 430 | -- |
| 18S 03W 14BDD 01 | 382913097371801 | 87.00 | 112PLSC | 84-08-08 | 1270 | 7.2 | 22.0 | 510 | -- |
| 19S 03W 29DBA 02 | 382208097402002 | 160.00 | 112PLSC | 84-08-08 | 934 | 7.6 | 15.5 | 370 | 13 |
| 20S 01W 11CCB 01 | 381919097242601 | -- | | 84-08-09 | 455 | 6.9 | 20.0 | 190 | -- |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 17S 03W 17DBD 01 | -- | -- | 69 | -- | -- | 11 | 456 | 260 | 160 |
| 17S 05W 23DAB 01 | 120 | 32 | 60 | 23 | 1 | 2.3 | 449 | 100 | 28 |
| 18S 03W 14BDD 01 | 160 | 27 | 79 | 25 | 2 | 2.0 | 576 | 41 | 110 |
| 19S 03W 29DBA 02 | 130 | 12 | 28 | 14 | 0.7 | 2.4 | 361 | 28 | 71 |
| 20S 01W 11CCB 01 | 64 | 7.6 | 25 | 22 | 0.8 | 1.6 | 231 | 13 | 9.2 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|
| 17S 03W 17DBD 01 | 0.3 | 36 | -- | <0.01 | 0.68 | 0.02 | -- | -- | -- |
| 17S 05W 23DAB 01 | 0.3 | 21 | 630 | <0.01 | 14.0 | 0.05 | 5 | 60 | <1 |
| 18S 03W 14BDD 01 | 0.3 | 35 | 800 | <0.01 | 0.06 | 0.09 | -- | -- | -- |
| 19S 03W 29DBA 02 | 0.2 | 37 | 530 | <0.01 | 3.40 | <0.01 | -- | -- | -- |
| 20S 01W 11CCB 01 | 0.3 | 26 | 290 | <0.01 | 4.60 | 0.11 | -- | -- | -- |

| LOCAL IDENT-I-FIER | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|
| 17S 03W 17DBD 01 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17S 05W 23DAB 01 | <10 | 40 | 10 | <1 | 20 | 0.8 | 3 | <10 | 10 |
| 18S 03W 14BDD 01 | -- | -- | 30 | -- | 100 | -- | -- | -- | -- |
| 19S 03W 29DBA 02 | -- | -- | 30 | -- | 130 | -- | -- | -- | -- |
| 20S 01W 11CCB 01 | -- | -- | 20 | -- | 60 | -- | -- | -- | -- |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### MARION COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 19S 01E 04ACC 01 | 382542097192801 | 67.00 | 310NNSC | 84-08-09 | 411 | 6.4 | 16.0 | 160 |
| 22S 03E 04AA 01 | 381018097C60001 | 70.00 |  | 84-08-09 | 960 | 7.2 | 15.5 | 530 |

| LOCAL IDENT-I-FIER | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 19S 01E 04ACC 01 | 18 | 46 | 8.4 | 28 | 29 | 1 | 1.1 | 127 |
| 22S 03E 04AA 01 | 140 | 140 | 44 | 26 | 10 | 0.5 | 1.4 | 390 |

| LOCAL IDENT-I-FIER | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 19S 01E 04ACC 01 | 39 | 21 | 0.3 | 18 | 240 | <0.01 | 7.90 | <0.01 |
| 22S 03E 04AA 01 | 190 | 22 | 0.5 | 18 | 680 | <0.01 | 3.40 | <0.01 |

| LOCAL IDENT-I-FIER | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 19S 01E 04ACC 01 | 10 | 120 | <1 | <10 | 10 | 10 | <1 | 10 |
| 22S 03E 04AA 01 | 4 | <10 | <1 | 10 | <10 | <10 | <1 | <10 |

| LOCAL IDENT-I-FIER | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 19S 01E 04ACC 01 | <0.5 | 2 | <10 | 20 | -- | -- | -- | -- |
| 22S 03E 04AA 01 | <0.5 | 3 | <10 | 50 | 1.6 | ND | ND | ND |

| LOCAL IDENT-I-FIER | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 19S 01E 04ACC 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 22S 03E 04AA 01 | ND | ND | ND | ND | ND | ND | ND | ND |

| LOCAL IDENT-I-FIER | LINDANE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 19S 01E 04ACC 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 22S 03E 04AA 01 | ND | ND | ND | ND | ND | ND | ND | ND |

ND Not detected.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

MARSHALL COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 04S 06E 16DDD 01 | 394152096450801 | -- | | 84-06-25 | 696 | 7.2 | 14.5 | 330 | 99 |
| 04S 09E 16AAB 02 | 394237096243702 | 104.00 | | 84-06-25 | 590 | 7.3 | 14.0 | 240 | 77 |

| LOCAL IDENT-I-FIER | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| 04S 06E 16DDD 01 | 20 | 14 | 8 | 0.3 | 6.2 | 382 | 37 | 7.5 | 0.3 |
| 04S 09E 16AAB 02 | 12 | 23 | 17 | 0.7 | 2.3 | 307 | 36 | 6.0 | 0.2 |

| LOCAL IDENT-I-FIER | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) |
|---|---|---|---|---|---|---|---|---|---|
| 04S 06E 16DDD 01 | <0.01 | 3.40 | 0.15 | 3 | 170 | <1 | <10 | <10 | <10 |
| 04S 09E 16AAB 02 | 0.05 | 0.89 | 0.01 | -- | -- | -- | -- | -- | <10 |

| LOCAL IDENT-I-FIER | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 04S 06E 16DDD 01 | <1 | 380 | <0.5 | 2 | 10 | 20 | 1.1 | ND | ND |
| 04S 09E 16AAB 02 | -- | 10 | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | ATRA-ZINE, TOTAL (UG/L) | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 04S 06E 16DDD 01 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 04S 09E 16AAB 02 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | LINDANE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 04S 06E 16DDD 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 04S 09E 16AAB 02 | -- | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### MEADE COUNTY

| LOCAL IDENTIFIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEOLOGIC UNIT | DATE | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 32S 28W 11BA 01 | 371656100201501 | -- | | 84-06-28 | 410 | 7.7 | 17.0 | 180 | 13 |
| 35S 30W 10CDB 01 | 370048100342901 | 260.00 | 121OGLL | 84-06-28 | 1000 | 7.7 | 17.0 | 220 | 47 |

| LOCAL IDENTIFIER | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY FIELD (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 32S 28W 11BA 01 | 55 | 10 | 15 | 15 | 0.5 | 3.7 | 166 | 24 | 7.8 |
| 35S 30W 10CDB 01 | 62 | 16 | 120 | 54 | 4 | 4.2 | 174 | 98 | 160 |

| LOCAL IDENTIFIER | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, DISSOLVED (MG/L AS P) | IRON, DISSOLVED (UG/L AS FE) | MANGANESE, DISSOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 32S 28W 11BA 01 | 0.7 | 26 | 240 | E0.34 | 2.70 | <0.01 | <10 | <10 |
| 35S 30W 10CDB 01 | 0.9 | 26 | 590 | <0.01 | 1.80 | <0.01 | 20 | <10 |

### MITCHELL COUNTY

| LOCAL IDENTIFIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEOLOGIC UNIT | DATE | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 06S 09W 26CAD 01 | 392958098173401 | 48.00 | 112TRRC | 84-07-26 | 1110 | 7.0 | 13.0 | 530 | 60 |

| LOCAL IDENTIFIER | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY FIELD (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 06S 09W 26CAD 01 | 190 | 13 | 58 | 19 | 1 | 8.0 | 468 | 110 | 76 |

| LOCAL IDENTIFIER | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, DISSOLVED (MG/L AS P) | IRON, DISSOLVED (UG/L AS FE) | MANGANESE, DISSOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 06S 09W 26CAD 01 | 0.1 | 45 | 780 | <0.01 | 9.20 | 0.33 | 20 | 50 |

E Estimated value.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### MORRIS COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 14S 06E 34AAC 01 | 384742096450301 | 120.00 | 319CHSE | 84-07-16 | 781 | 7.2 | 14.5 | 370 | 100 |
| 14S 08E 07DAC 01 | 385044096334401 | 100.00 | 319CHSE | 84-07-16 | 874 | 7.1 | 14.0 | 390 | 120 |

| LOCAL IDENT- I- FIER | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 14S 06E 34AAC 01 | 28 | 34 | 17 | 0.8 | 1.0 | 380 | 55 | 22 |
| 14S 08E 07DAC 01 | 22 | 44 | 20 | 1 | 1.2 | 393 | 59 | 39 |

| LOCAL IDENT- I- FIER | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 14S 06E 34AAC 01 | 0.2 | 19 | 490 | <0.01 | 9.40 | <0.01 | 20 | <10 |
| 14S 08E 07DAC 01 | 0.2 | 20 | 540 | <0.01 | 10.0 | 0.01 | 10 | 10 |

### MORTON COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | HARD- NESS, NONCAR- BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 32S 42W 14CCC 01 | 371531101514501 | 187.00 | 121OGLL | 84-06-29 | 690 | 7.7 | 16.5 | 290 | 96 |
| 33S 43W 27CDC 01 | 370835101590501 | -- |  | 84-06-29 | 700 | 7.5 | 18.0 | 220 | 7 |

| LOCAL IDENT- I- FIER | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 32S 42W 14CCC 01 | 52 | 38 | 46 | 26 | 1 | 3.8 | 190 | 140 | 16 |
| 33S 43W 27CDC 01 | 36 | 32 | 65 | 38 | 2 | 6.9 | 215 | 130 | 9.0 |

| LOCAL IDENT- I- FIER | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 32S 42W 14CCC 01 | 3.7 | 32 | 450 | 0.27 | 2.50 | 0.01 | 30 | <10 |
| 33S 43W 27CDC 01 | 2.6 | 24 | 430 | 0.29 | 3.50 | <0.01 | 20 | <10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### NEMAHA COUNTY

| LOCAL IDENTIFIER | STATION NUMBER | GEOLOGIC UNIT | DATE | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) | HARDNESS (MG/L AS CACO3) | CALCIUM DISSOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|
| 02S 12E 26CAD 01 | 395049096023201 | | 84-06-04 | 699 | 7.4 | 14.0 | 330 | 100 |
| 04S 13E 35BAA 01 | 393959095554201 | 112PLSC | 84-06-04 | 735 | 7.2 | 13.5 | 380 | 120 |
| 05S 11E 02CBB 01 | 393842096094401 | 112PLSC | 84-06-04 | 737 | 7.5 | 14.0 | 260 | 66 |
| 05S 14E 11ACC 01 | 393755095490101 | 112PLSC | 84-06-05 | 439 | 7.7 | 19.0 | 190 | 63 |

| LOCAL IDENTIFIER | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY FIELD (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 02S 12E 26CAD 01 | 19 | 20 | 12 | 0.5 | 1.4 | 376 | 54 | 9.4 |
| 04S 13E 35BAA 01 | 19 | 8.9 | 5 | 0.2 | 0.8 | 449 | 23 | 2.5 |
| 05S 11E 02CBB 01 | 22 | 63 | 34 | 2 | 10 | 454 | 37 | 7.2 |
| 05S 14E 11ACC 01 | 8.2 | 14 | 14 | 0.5 | 1.0 | 264 | <10 | 8.4 |

| LOCAL IDENTIFIER | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, DISSOLVED (MG/L AS P) | IRON, DISSOLVED (UG/L AS FE) | MANGANESE, DISSOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 02S 12E 26CAD 01 | 0.3 | 20 | 450 | <0.01 | 0.25 | <0.01 | 20 | 130 |
| 04S 13E 35BAA 01 | 0.4 | 22 | 470 | <0.01 | 3.50 | <0.01 | 360 | 70 |
| 05S 11E 02CBB 01 | 0.2 | 16 | 500 | 1.50 | 0.01 | 0.03 | 60 | 80 |
| 05S 14E 11ACC 01 | 0.2 | 8.8 | -- | 0.14 | 0.09 | <0.01 | <10 | 130 |

### NESS COUNTY

| LOCAL IDENTIFIER | STATION NUMBER | GEOLOGIC UNIT | DATE | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) | CALCIUM DISSOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 19S 23W 05CCD 01 | 382520099534001 | | 84-07-10 | 965 | 7.3 | 14.5 | 370 | 99 | 110 |
| 20S 23W 29DBB 01 | 381655099531201 | | 84-09-25 | 1280 | 7.0 | 14.5 | 570 | 370 | 180 |

| LOCAL IDENTIFIER | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY FIELD (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| 19S 23W 05CCD 01 | 24 | 59 | 25 | 1 | 14 | 275 | 160 | 58 | 0.5 |
| 20S 23W 29DBB 01 | 29 | 54 | 17 | 1 | 10 | 194 | 280 | 140 | 0.3 |

| LOCAL IDENTIFIER | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, DISSOLVED (MG/L AS P) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, DISSOLVED (UG/L AS BA) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM, DISSOLVED (UG/L AS CR) |
|---|---|---|---|---|---|---|---|---|---|
| 19S 23W 05CCD 01 | 60 | 650 | 0.69 | 0.03 | 0.23 | 11 | 90 | <1 | 10 |
| 20S 23W 29DBB 01 | 28 | 840 | 0.04 | 6.40 | 0.01 | -- | -- | -- | -- |

| LOCAL IDENTIFIER | COPPER, DISSOLVED (UG/L AS CU) | IRON, DISSOLVED (UG/L AS FE) | LEAD, DISSOLVED (UG/L AS PB) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY DISSOLVED (UG/L AS HG) | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | ZINC, DISSOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|
| 19S 23W 05CCD 01 | <10 | 1200 | <1 | 740 | <0.5 | <1 | <10 | >70 | 1.3 |
| 20S 23W 29DBB 01 | -- | <150 | -- | 10 | -- | -- | -- | -- | -- |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

NORTON COUNTY

| LOCAL IDENT-I-FIER | | STATION NUMBER | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 02S 21W 08ADD 01 | ALMENA | 395340099420801 | | 84-07-26 | 885 | 7.5 | 12.0 | 430 | 76 |
| 05S 24W 14CCA 01 | | 393650099595401 | | 84-08-02 | 970 | 7.3 | 14.0 | 440 | 140 |

| LOCAL IDENT-I-FIER | | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|
| 02S 21W 08ADD 01 | ALMENA | 130 | 25 | 27 | 12 | 0.6 | 17 | 352 | 63 |
| 05S 24W 14CCA 01 | | 130 | 27 | 34 | 16 | 0.7 | 12 | 292 | 120 |

| LOCAL IDENT-I-FIER | | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | ARSENIC DIS-SOLVED (UG/L AS AS) |
|---|---|---|---|---|---|---|---|---|---|
| 02S 21W 08ADD 01 | ALMENA | 33 | 0.3 | 49 | 560 | 0.12 | 4.60 | 0.21 | -- |
| 05S 24W 14CCA 01 | | 50 | 0.5 | 44 | 590 | 0.17 | 3.70 | 0.10 | 6 |

| LOCAL IDENT-I-FIER | | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MERCURY DIS-SOLVED (UG/L AS HG) |
|---|---|---|---|---|---|---|---|---|---|
| 02S 21W 08ADD 01 | ALMENA | -- | -- | -- | -- | 10 | -- | 360 | -- |
| 05S 24W 14CCA 01 | | 230 | <1 | <10 | 10 | 510 | <1 | 320 | <0.5 |

| LOCAL IDENT-I-FIER | | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) | CHLOR-DANE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 02S 21W 08ADD 01 | ALMENA | -- | -- | -- | -- | -- | -- | -- | -- |
| 05S 24W 14CCA 01 | | 5 | <10 | 40 | 2.2 | ND | ND | ND | ND |

| LOCAL IDENT-I-FIER | | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 02S 21W 08ADD 01 | ALMENA | -- | -- | -- | -- | -- | -- | -- | -- |
| 05S 24W 14CCA 01 | | ND | ND | ND | ND | ND | ND | ND | ND |

| LOCAL IDENT-I-FIER | | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 02S 21W 08ADD 01 | ALMENA WE | -- | -- | -- | -- | -- | -- | -- |
| 05S 24W 14CCA 01 | | ND | ND | ND | ND | ND | ND | ND |

ND Not detected.

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## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

## OSBORNE COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 06S 11W 28ACD 01 | 393012098325401 | -- | | 84-08-01 | 1050 | 6.9 | 15.5 | 440 |
| 06S 12W 06CBB 01 | 393334098422901 | 60.00 | 112ALVM | 84-08-01 | 1160 | 7.0 | 14.5 | 430 |
| 07S 15W 11ADD 01 | 392736098571301 | 60.00 | 112ALVM | 84-08-01 | 1120 | 7.7 | 14.0 | 400 |
| 10S 15W 18AAA 01 | 391123098014701 | -- | | 84-08-08 | 1140 | 7.2 | 12.5 | 570 |

| LOCAL IDENT-I-FIER | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 06S 11W 28ACD 01 | 120 | 150 | 17 | 52 | 20 | 1 | 6.7 | 328 |
| 06S 12W 06CBB 01 | 76 | 140 | 20 | 82 | 28 | 2 | 16 | 356 |
| 07S 15W 11ADD 01 | 110 | 130 | 18 | 77 | 29 | 2 | 9.2 | 292 |
| 10S 15W 18AAA 01 | 230 | 200 | 16 | 37 | 12 | 0.7 | 3.9 | 336 |

| LOCAL IDENT-I-FIER | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 06S 11W 28ACD 01 | 100 | 62 | 0.3 | 41 | 630 | 0.22 | 8.60 | 0.06 |
| 06S 12W 06CBB 01 | 160 | 69 | 0.2 | 47 | 750 | 0.61 | 1.90 | 0.66 |
| 07S 15W 11ADD 01 | 170 | 66 | 0.3 | 36 | 680 | 0.15 | 7.50 | 0.07 |
| 10S 15W 18AAA 01 | 230 | 56 | 0.3 | 30 | 770 | 0.08 | 3.90 | <0.01 |

| LOCAL IDENT-I-FIER | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 06S 11W 28ACD 01 | -- | -- | -- | -- | -- | 20 | -- | 10 |
| 06S 12W 06CBB 01 | -- | -- | -- | -- | -- | 20 | -- | 950 |
| 07S 15W 11ADD 01 | 4 | 90 | <1 | <10 | <10 | 10 | <1 | 40 |
| 10S 15W 18AAA 01 | 4 | 40 | <1 | <10 | <10 | 30 | <1 | <10 |

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WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

OSBORNE COUNTY--Continued

| LOCAL IDENT-I-FIER | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 06S 11W 28ACD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06S 12W 06CBB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 07S 15W 11ADD 01 | <0.5 | 6 | <10 | 30 | 1.5 | ND | ND | ND |
| 10S 15W 18AAA 01 | 0.7 | 1 | <10 | 60 | 2.0 | ND | ND | ND |

| LOCAL IDENT-I-FIER | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 06S 11W 28ACD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06S 12W 06CBB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 07S 15W 11ADD 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 10S 15W 18AAA 01 | ND | ND | ND | ND | ND | ND | ND | ND |

| LOCAL IDENT-I-FIER | LINDANE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 06S 11W 28ACD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 06S 12W 06CBB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 07S 15W 11ADD 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 10S 15W 18AAA 01 | ND | ND | ND | ND | ND | ND | ND | ND |

ND Not detected.

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## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### OTTAWA COUNTY

| LOCAL IDENTIFIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEOLOGIC UNIT | DATE | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 09S 04W 10BBC 07 | 391720097453407 | -- | | 84-08-02 | 668 | 6.9 | 15.0 | 210 | -- |
| 12S 03W 01DBA 02 | 390213097360002 | 47.00 | 112TRRC | 84-08-02 | 488 | 6.8 | 14.5 | 300 | 100 |
| 12S 05W 15ADD 01 | 390035097511901 | 50.00 | 112ALVM | 84-08-02 | 959 | 7.0 | 14.0 | 400 | -- |

| LOCAL IDENTIFIER | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY FIELD (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 09S 04W 10BBC 07 | 71 | 7.3 | 28 | 22 | 0.9 | 2.2 | 351 | 30 | 10 |
| 12S 03W 01DBA 02 | 100 | 11 | 31 | 18 | 0.8 | 4.7 | 195 | 38 | 13 |
| 12S 05W 15ADD 01 | 140 | 13 | 55 | 23 | 1 | 5.2 | 429 | 110 | 57 |

| LOCAL IDENTIFIER | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, DISSOLVED (MG/L AS P) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, DISSOLVED (UG/L AS BA) | CADMIUM DISSOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|
| 09S 04W 10BBC 07 | 0.3 | 27 | 390 | <0.01 | 4.50 | 0.14 | -- | -- | -- |
| 12S 03W 01DBA 02 | 0.2 | 42 | 360 | <0.01 | 5.50 | 0.30 | <1 | 210 | <1 |
| 12S 05W 15ADD 01 | 0.2 | 35 | 670 | <0.01 | 1.90 | 0.10 | <1 | 250 | <1 |

| LOCAL IDENTIFIER | CHROMIUM, DISSOLVED (UG/L AS CR) | COPPER, DISSOLVED (UG/L AS CU) | IRON, DISSOLVED (UG/L AS FE) | LEAD, DISSOLVED (UG/L AS PB) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY DISSOLVED (UG/L AS HG) | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|
| 09S 04W 10BBC 07 | -- | -- | 10 | -- | <10 | -- | -- | -- | -- |
| 12S 03W 01DBA 02 | 10 | 10 | 30 | <1 | 10 | -- | 3 | 10 | 10 |
| 12S 05W 15ADD 01 | <10 | 20 | 30 | <1 | 280 | <0.5 | 3 | 10 | 10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### PAWNEE COUNTY

| LOCAL IDENTIFIER | STATION NUMBER | GEOLOGIC UNIT | DATE | SPECIFIC CONDUCTANCE (UMHOS) | PH (STANDARD UNITS) | TEMPERATURE (DEG C) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|
| 21S 16W 29ABA 01 | 381207099C60801 | | 84-08-23 | 1470 | 7.5 | 16.0 | 510 | 290 |

| LOCAL IDENTIFIER | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY FIELD (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|
| 21S 16W 29ABA 01 | 140 | 38 | 150 | 39 | 3 | 6.4 | 215 | 390 |

| LOCAL IDENTIFIER | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, DISSOLVED (MG/L AS P) | ARSENIC DISSOLVED (UG/L AS AS) |
|---|---|---|---|---|---|---|---|---|
| 21S 16W 29ABA 01 | 130 | 0.6 | 16 | 1000 | 0.21 | 9.60 | <0.01 | 7 |

| LOCAL IDENTIFIER | BARIUM, DISSOLVED (UG/L AS BA) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM, DISSOLVED (UG/L AS CR) | COPPER, DISSOLVED (UG/L AS CU) | IRON, DISSOLVED (UG/L AS FE) | LEAD, DISSOLVED (UG/L AS PB) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY DISSOLVED (UG/L AS HG) |
|---|---|---|---|---|---|---|---|---|
| 21S 16W 29ABA 01 | 80 | <1 | <10 | <10 | 20 | <1 | 10 | <0.5 |

| LOCAL IDENTIFIER | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | ZINC, DISSOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALACHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRAZINE, TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 21S 16W 29ABA 01 | 1 | 10 | 10 | 1.0 | ND | ND | ND | ND |

| LOCAL IDENTIFIER | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | METOLACHLOR IN WHOLE WATER (UG/L) | PROPACHLOR IN WHOLE WATER (UG/L) | METRIBUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 21S 16W 29ABA 01 | ND | ND | ND | ND | ND | ND | ND | ND |

| LOCAL IDENTIFIER | METHOXYCHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOXAPHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|
| 21S 16W 29ABA 01 | ND | ND | ND | ND | ND | ND | ND |

ND Not detected.

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## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### PHILLIPS COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 01S 20W 23DDD 01 | 395643099320601 | -- | | 84-07-26 | 1120 | 7.2 | 12.0 | 490 |
| 04S 16W 27CCA 01 | 394019099070801 | 70.00 | 112TRRC | 84-08-01 | 920 | 7.0 | 15.0 | 340 |
| 04S 18W 23DCA 01 | 394112099185701 | 69.00 | 210CRCS | 84-07-27 | 785 | 7.5 | 14.0 | 350 |
| 04S 20W 34CAB 01 | 393940099335701 | 56.00 | 112ALVM | 84-07-26 | 1220 | 7.1 | 14.0 | 600 |

| LOCAL IDENT- I- FIER | HARD- NESS, NONCAR- BONATE (MG/L CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 01S 20W 23DDD 01 | 93 | 150 | 28 | 61 | 21 | 1 | 17 | 397 |
| 04S 16W 27CCA 01 | 61 | 100 | 21 | 66 | 29 | 2 | 15 | 275 |
| 04S 18W 23DCA 01 | 8[illegible] | 120 | 12 | 37 | 13 | 0.9 | 6.0 | 263 |
| 04S 20W 34CAB 01 | 290 | 190 | 30 | 41 | 13 | 0.8 | 13 | 304 |

| LOCAL IDENT- I- FIER | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 01S 20W 23DDD 01 | 160 | 41 | 0.2 | 47 | 740 | 0.19 | 4.90 | 0.29 |
| 04S 16W 27CCA 01 | 140 | 40 | 0.3 | 45 | 590 | 0.11 | 5.00 | 0.23 |
| 04S 18W 23DCA 01 | 100 | 27 | 0.3 | 31 | 490 | 0.17 | 3.50 | 0.03 |
| 04S 20W 34CAB 01 | 330 | 27 | 0.3 | 44 | 860 | 0.15 | 3.00 | 0.05 |

| LOCAL IDENT- I- FIER | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | CADMIUM DIS- SOLVED (UG/L AS CD) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 01S 20W 23DDD 01 | -- | -- | -- | -- | -- | <20 | -- | 150 |
| 04S 16W 27CCA 01 | 16 | 40 | <1 | <10 | <10 | 20 | <1 | 290 |
| 04S 18W 23DCA 01 | -- | -- | -- | -- | -- | 10 | -- | <10 |
| 04S 20W 34CAB 01 | -- | -- | -- | -- | -- | 10 | -- | 60 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### PHILLIPS COUNTY--Continued

| LOCAL IDENT- I- FIER | MERCURY DIS- SOLVED (UG/L AS HG) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | ZINC, DIS- SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA- CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA- ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 01S 20W 23DDD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04S 16W 27CCA 01 | <0.5 | 14 | <10 | 20 | 1.4 | ND | ND | ND |
| 04S 18W 23DCA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04S 20W 34CAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | CHLOR- DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI- ELDRIN TOTAL (UG/L) | METOLA- CHLOR IN WHOLE WATER (UG/L) | PROPA- CHLOR IN WHOLE WATER (UG/L) | METRI- BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 01S 20W 23DDD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04S 16W 27CCA 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 04S 18W 23DCA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04S 20W 34CAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | LINDANE TOTAL (UG/L) | METH- OXY- CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX- APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 01S 20W 23DDD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04S 16W 27CCA 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 04S 18W 23DCA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04S 20W 34CAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### POTTAWATOMIE COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 07S 07E 23BBA 01 | 392606096372701 | 110.00 | 319CHSE | 84-06-25 | 895 | 7.2 | 14.5 | 350 |
| 10S 09E 09CDC 01 | 391122096251801 | -- | 112PLSC | 84-05-22 | 304 | 7.0 | 15.0 | 150 |
| 10S 10E 09BDB 01 | 391154096183601 | -- | | 84-05-22 | 783 | 7.1 | 15.5 | 340 |
| 10S 12E 09ADB 04 | 391152096043306 | 52.00 | 112NWMN | 84-05-25 | 1210 | 7.0 | 14.5 | 500 |

| LOCAL IDENT-I-FIER | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 07S 07E 23BBA 01 | -- | 94 | 27 | 31 | 16 | 0.8 | 1.0 | 414 |
| 10S 09E 09CDC 01 | -- | 49 | 6.2 | 14 | 17 | 0.5 | 1.8 | 155 |
| 10S 10E 09BDB 01 | 100 | 110 | 17 | 53 | 25 | 1 | 6.5 | 246 |
| 10S 12E 09ADB 04 | 110 | 170 | 22 | 54 | 19 | 1 | 7.8 | 395 |

| LOCAL IDENT-I-FIER | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 07S 07E 23BBA 01 | 32 | 26 | 0.2 | -- | -- | <0.01 | 10.0 | 0.02 |
| 10S 09E 09CDC 01 | 15 | 6.0 | 0.2 | 35 | 220 | 0.01 | 5.00 | 0.12 |
| 10S 10E 09BDB 01 | 110 | 66 | 0.2 | 23 | 530 | 0.08 | 2.30 | 0.40 |
| 10S 12E 09ADB 04 | 74 | 120 | 0.2 | 37 | 720 | 0.76 | 18.0 | 0.22 |

| LOCAL IDENT-I-FIER | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 07S 07E 23BBA 01 | -- | -- | -- | -- | -- | 10 | -- | <10 |
| 10S 09E 09CDC 01 | -- | -- | -- | -- | -- | <10 | -- | 10 |
| 10S 10E 09BDB 01 | <10 | 110 | <1 | <10 | 30 | 20 | <10 | 990 |
| 10S 12E 09ADB 04 | -- | -- | -- | -- | -- | 50 | -- | 20 |

| LOCAL IDENT-I-FIER | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 07S 07E 23BBA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 10S 09E 09CDC 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 10S 10E 09BDB 01 | <0.5 | 1 | <10 | 20 | 1.1 | ND | ND | ND |
| 10S 12E 09ADB 04 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 07S 07E 23BBA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 10S 09E 09CDC 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 10S 10E 09BDB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 10S 12E 09ADB 04 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | LINDANE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 07S 07E 23BBA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 10S 09E 09CDC 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 10S 10E 09BDB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 10S 12E 09ADB 04 | -- | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

## PRATT COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 26S 11W 30ADD 02 | 374519098332402 | -- | 112KNSN | 84-08-22 | 565 | 7.5 | 14.0 | 250 |
| 26S 14W 18CCD 01 | 374641098535901 | -- | 112PLSC | 84-08-21 | 340 | 7.7 | 15.5 | 160 |
| 27S 13W 08DDC 01 | 374220098453801 | -- |  | 84-07-06 | 840 | 7.3 | 16.0 | 340 |
| 29S 14W 23BBA 01 | 373047098493401 | 110.00 | 112KNSN | 84-07-06 | 410 | 7.6 | 16.0 | 200 |

| LOCAL IDENT- I- FIER | HARD- NESS, NONCAR- BONATE (MG/L CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 26S 11W 30ADD 02 | -- | 90 | 6.6 | 23 | 16 | 0.7 | 2.4 | -- |
| 26S 14W 18CCD 01 | 22 | 59 | 4.0 | 7.2 | 9 | 0.3 | 2.8 | 142 |
| 27S 13W 08DDC 01 | 96 | 120 | 8.6 | 30 | 16 | 0.7 | 4.0 | 239 |
| 29S 14W 23BBA 01 | 33 | 71 | 6.3 | 19 | 17 | 0.6 | 3.0 | 170 |

| LOCAL IDENT- I- FIER | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 26S 11W 30ADD 02 | 28 | 17 | 0.3 | 25 | -- | 0.23 | 1.10 | <0.01 |
| 26S 14W 18CCD 01 | 10 | 2.1 | 0.3 | 27 | 200 | 0.04 | 6.80 | 0.06 |
| 27S 13W 08DDC 01 | 22 | 98 | 0.2 | 30 | 460 | 0.38 | 4.00 | <0.01 |
| 29S 14W 23BBA 01 | 14 | 15 | 0.2 | 24 | 250 | 0.34 | 3.30 | <0.01 |

| LOCAL IDENT- I- FIER | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | CADMIUM DIS- SOLVED (UG/L AS CD) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 26S 11W 30ADD 02 | 18 | 460 | <1 | 10 | <10 | 10 | <1 | <10 |
| 26S 14W 18CCD 01 | -- | -- | -- | -- | -- | <10 | -- | <10 |
| 27S 13W 08DDC 01 | -- | -- | -- | -- | -- | <10 | -- | <10 |
| 29S 14W 23BBA 01 | -- | -- | -- | -- | -- | <10 | -- | <10 |

| LOCAL IDENT- I- FIER | MERCURY DIS- SOLVED (UG/L AS HG) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | ZINC, DIS- SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA- CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA- ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 26S 11W 30ADD 02 | <0.5 | 1 | 10 | 10 | 1.0 | ND | ND | ND |
| 26S 14W 18CCD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 27S 13W 08DDC 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29S 14W 23BBA 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | CHLOR- DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI- ELDRIN TOTAL (UG/L) | METOLA- CHLOR IN WHOLE WATER (UG/L) | PROPA- CHLOR IN WHOLE WATER (UG/L) | METRI- BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 26S 11W 30ADD 02 | ND | ND | ND | ND | ND | ND | ND | ND |
| 26S 14W 18CCD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 27S 13W 08DDC 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29S 14W 23BBA 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | LINDANE TOTAL (UG/L) | METH- OXY- CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX- APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 26S 11W 30ADD 02 | ND | ND | ND | ND | ND | ND | ND | ND |
| 26S 14W 18CCD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 27S 13W 08DDC 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29S 14W 23BBA 01 | -- | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

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## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### RAWLINS COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 03S 36W 18DCC 01 | 394711101240601 | -- | 121OGLL | 84-08-07 | 460 | 7.7 | 16.5 | 150 | 34 |

| LOCAL IDENT- I- FIER | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 03S 36W 18DCC 01 | 15 | 34 | 32 | 1 | 8.6 | 174 | 31 | 5.3 |

| LOCAL IDENT- I- FIER | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 03S 36W 18DCC 01 | 2.0 | 73 | 310 | <0.01 | 4.30 | <0.01 | 20 | <10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### RENO COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 22S 04W 12DDD 02 | 380845097421002 | 88.00 | 112MCPR | 84-07-12 | 700 | 7.2 | 15.0 | 310 |
| 22S 07W 10CAA 01 | 380904098045101 | -- | | 84-07-12 | 2330 | 7.5 | 14.5 | 640 |
| 23S 06W 13BBA 01 | 380324097561301 | -- | | 84-07-13 | 1720 | 7.4 | 16.0 | 410 |
| 24S 10W 15CAB 01 | 375741098245101 | -- | 112CRET | 84-08-22 | 490 | 7.4 | 14.0 | 170 |
| 25S 04W 05DAD 01 | 375408097462901 | 54.00 | 112WSCS | 84-07-12 | 1290 | 6.9 | 16.0 | 470 |
| 25S 08W 10BAD 01 | 375340098111701 | -- | 112MEDE | 84-07-12 | 470 | 7.0 | 16.0 | 130 |
| 26S 10W 05DD 01 | 374827098253601 | -- | 112MEDE | 84-08-22 | 795 | 7.6 | 14.5 | 250 |

| LOCAL IDENT- I- FIER | HARD- NESS, NONCAR- BONATE (MG/L CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 22S 04W 12DDD 02 | 15 | 98 | 16 | 29 | 17 | 0.7 | 3.3 | 296 |
| 22S 07W 10CAA 01 | 380 | 190 | 40 | 250 | 46 | 4 | 6.6 | 259 |
| 23S 06W 13BBA 01 | 130 | 130 | 21 | 200 | 51 | 4 | 5.8 | 284 |
| 24S 10W 15CAB 01 | 35 | 56 | 6.2 | 33 | 30 | 1 | 2.8 | 130 |
| 25S 04W 05DAD 01 | 170 | 150 | 23 | 73 | 25 | 2 | 2.5 | 296 |
| 25S 08W 10BAD 01 | 38 | 43 | 4.7 | 40 | 40 | 2 | 1.8 | 89 |
| 26S 10W 05DD 01 | 40 | 88 | 7.6 | 69 | 37 | 2 | 1.9 | 211 |

| LOCAL IDENT- I- FIER | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 22S 04W 12DDD 02 | 46 | 16 | 0.3 | 30 | 420 | 0.26 | 0.02 | 0.03 |
| 22S 07W 10CAA 01 | 180 | 490 | 0.6 | 16 | 1300 | 0.13 | 4.90 | 0.01 |
| 23S 06W 13BBA 01 | 150 | 280 | 0.6 | 17 | 980 | 0.22 | 3.00 | 0.02 |
| 24S 10W 15CAB 01 | 18 | 43 | 0.3 | 27 | 260 | 0.04 | 5.40 | 0.06 |
| 25S 04W 05DAD 01 | 13 | 190 | 0.2 | 30 | 660 | 0.21 | 5.70 | 0.03 |
| 25S 08W 10BAD 01 | 16 | 43 | 0.2 | 24 | 230 | 0.25 | 12.0 | 0.03 |
| 26S 10W 05DD 01 | 35 | 90 | 0.3 | 25 | 440 | 0.05 | 6.00 | 0.01 |

| LOCAL IDENT- I- FIER | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | CADMIUM DIS- SOLVED (UG/L AS CD) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 22S 04W 12DDD 02 | -- | -- | -- | -- | -- | 320 | -- | 410 |
| 22S 07W 10CAA 01 | 4 | 70 | <1 | <10 | 30 | 10 | <1 | 10 |
| 23S 06W 13BBA 01 | 8 | 70 | <1 | 10 | 10 | 30 | <1 | 40 |
| 24S 10W 15CAB 01 | -- | -- | -- | -- | -- | 10 | -- | <10 |
| 25S 04W 05DAD 01 | -- | -- | -- | -- | -- | 10 | -- | <10 |
| 25S 08W 10BAD 01 | -- | -- | -- | -- | -- | 20 | -- | <10 |
| 26S 10W 05DD 01 | 17 | 430 | <1 | <10 | 10 | 20 | <1 | <10 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

RENO COUNTY--Continued

| LOCAL IDENT- I- FIER | MERCURY DIS- SOLVED (UG/L AS HG) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | ZINC, DIS- SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA- CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA- ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 22S 04W 12DDD 02 | -- | -- | -- | -- | -- | -- | -- | -- |
| 22S 07W 10CAA 01 | <0.5 | 2 | <10 | 30 | 0.9 | ND | ND | ND |
| 23S 06W 13BBA 01 | <0.5 | 8 | <10 | 20 | -- | ND | ND | ND |
| 24S 10W 15CAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25S 04W 05DAD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25S 08W 10BAD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 26S 10W 05DD 01 | <0.5 | <1 | 10 | 20 | 0.5 | -- | -- | -- |

| LOCAL IDENT- I- FIER | CHLOR- DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI- ELDRIN TOTAL (UG/L) | METOLA- CHLOR IN WHOLE WATER (UG/L) | PROPA- CHLOR IN WHOLE WATER (UG/L) | METRI- BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 22S 04W 12DDD 02 | -- | -- | -- | -- | -- | -- | -- | -- |
| 22S 07W 10CAA 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 23S 06W 13BBA 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 24S 10W 15CAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25S 04W 05DAD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25S 08W 10BAD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 26S 10W 05DD 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | LINDANE TOTAL (UG/L) | METH- OXY- CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX- APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 22S 04W 12DDD 02 | -- | -- | -- | -- | -- | -- | -- | -- |
| 22S 07W 10CAA 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 23S 06W 13BBA 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 24S 10W 15CAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25S 04W 05DAD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25S 08W 10BAD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 26S 10W 05DD 01 | -- | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### REPUBLIC COUNTY

| LOCAL IDENT- I- FIER | | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 01S 02W 33DCD 01 | | 395458097323501 | 62.00 | 112PLSC | 84-07-27 | 1110 | 7.2 | 13.0 | 500 |
| 01S 03W 02CCB 01 | | 395926097374801 | 200.00 | 112PLSC | 84-07-26 | 541 | 7.0 | 14.0 | 270 |
| 01S 04W 31BCC 01 | REPUBLIC | 395524097490501 | -- | | 84-07-26 | 666 | 6.9 | 14.5 | 240 |
| 03S 04W 17DAD 01 | | 394722097465901 | 42.00 | | 84-07-26 | 1110 | 7.2 | 13.0 | 480 |

| LOCAL IDENT- I- FIER | | HARD- NESS, NONCAR- BONATE (MG/L CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 01S 02W 33DCD 01 | | 73 | 170 | 18 | 54 | 19 | 1 | 3.1 | 426 |
| 01S 03W 02CCB 01 | | -- | 92 | 9.2 | 17 | 12 | 0.5 | 2.4 | 304 |
| 01S 04W 31BCC 01 | REPUBLIC | -- | 79 | 10 | 54 | 32 | 2 | 5.4 | 278 |
| 03S 04W 17DAD 01 | | 92 | 160 | 19 | 73 | 24 | 2 | 11 | 396 |

| LOCAL IDENT- I- FIER | | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|
| 01S 02W 33DCD 01 | | 90 | 59 | 0.2 | 27 | 680 | <0.01 | 23.0 | 0.01 |
| 01S 03W 02CCB 01 | | 13 | 17 | 0.2 | 45 | 390 | <0.01 | -- | 0.11 |
| 01S 04W 31BCC 01 | REPUBLIC | 47 | 31 | 0.2 | 30 | 420 | <0.01 | 11.0 | 0.30 |
| 03S 04W 17DAD 01 | | 170 | 89 | 0.4 | 30 | 790 | 0.11 | 2.10 | <0.01 |

| LOCAL IDENT- I- FIER | | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | CADMIUM DIS- SOLVED (UG/L AS CD) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|
| 01S 02W 33DCD 01 | | -- | -- | -- | -- | -- | 20 | -- | 10 |
| 01S 03W 02CCB 01 | | -- | -- | -- | -- | -- | 10 | -- | 10 |
| 01S 04W 31BCC 01 | REPUBLIC | <1 | 240 | <1 | 10 | <10 | 30 | <1 | <10 |
| 03S 04W 17DAD 01 | | -- | -- | -- | -- | -- | 610 | -- | 980 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### REPUBLIC COUNTY--Continued

| LOCAL IDENT- I- FIER | | MERCURY DIS- SOLVED (UG/L AS HG) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | ZINC, DIS- SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA- CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA- ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 01S 02W 33DCD 01 | | -- | -- | -- | -- | -- | -- | -- | -- |
| 01S 03W 02CCB 01 | | -- | -- | -- | -- | -- | -- | -- | -- |
| 01S 04W 31BCC 01 | REPUBLIC | <0.5 | 2 | 10 | 20 | 1.0 | ND | ND | ND |
| 03S 04W 17DAD 01 | | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | | CHLOR- DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI- ELDRIN TOTAL (UG/L) | METOLA- CHLOR IN WHOLE WATER (UG/L) | PROPA- CHLOR IN WHOLE WATER (UG/L) | METRI- BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 01S 02W 33DCD 01 | | -- | -- | -- | -- | -- | -- | -- | -- |
| 01S 03W 02CCB 01 | | -- | -- | -- | -- | -- | -- | -- | -- |
| 01S 04W 31BCC 01 | REPUBLIC | ND | ND | ND | ND | ND | ND | ND | ND |
| 03S 04W 17DAD 01 | | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | | LINDANE TOTAL (UG/L) | METH- OXY- CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX- APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 01S 02W 33DCD 01 | | -- | -- | -- | -- | -- | -- | -- | -- |
| 01S 03W 02CCB 01 | | -- | -- | -- | -- | -- | -- | -- | -- |
| 01S 04W 31BCC 01 | REPUBLIC | ND | ND | ND | ND | ND | ND | ND | ND |
| 03S 04W 17DAD 01 | | -- | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

## RICE COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 19S 06W 29CCD 01 | 382149098C04801 | -- | | 84-07-11 | 1130 | 7.4 | 14.0 | 320 |
| 19S 09W 31DAB 01 | 382116098210601 | 60.00 | 112WSCS | 84-07-11 | 1040 | 7.4 | 15.0 | 320 |
| 20S 08W 16AA 01 | 381902098121101 | -- | | 84-08-09 | 1180 | 7.3 | 15.0 | 310 |
| 21S 08W 21BAC 01 | 381252098124701 | 120.00 | | 84-07-11 | 960 | 7.7 | 15.0 | 310 |

| LOCAL IDENT- I- FIER | HARD- NESS, NONCAR- BONATE (MG/L CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 19S 06W 29CCD 01 | 150 | 110 | 12 | 100 | 40 | 3 | 1.4 | 178 |
| 19S 09W 31DAB 01 | 85 | 110 | 12 | 96 | 39 | 2 | 2.8 | 239 |
| 20S 08W 16AA 01 | -- | 96 | 17 | 140 | 49 | 4 | 3.3 | 356 |
| 21S 08W 21BAC 01 | 61 | 92 | 20 | 79 | 35 | 2 | 2.9 | 251 |

| LOCAL IDENT- I- FIER | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 19S 06W 29CCD 01 | 15 | 200 | 0.2 | 22 | 570 | 0.22 | 4.70 | <0.01 |
| 19S 09W 31DAB 01 | 24 | 170 | 0.3 | 28 | 590 | 0.23 | 4.70 | 0.04 |
| 20S 08W 16AA 01 | 67 | 170 | 0.3 | 29 | 740 | <0.01 | 3.90 | 0.13 |
| 21S 08W 21BAC 01 | 110 | 84 | 1.0 | 16 | 560 | 0.24 | 5.50 | <0.01 |

| LOCAL IDENT- I- FIER | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | CADMIUM DIS- SOLVED (UG/L AS CD) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 19S 06W 29CCD 01 | -- | -- | -- | -- | -- | 10 | -- | <10 |
| 19S 09W 31DAB 01 | 3 | 320 | <1 | 10 | 10 | <10 | <1 | <10 |
| 20S 08W 16AA 01 | 10 | 120 | <1 | <10 | 20 | 10 | <1 | 10 |
| 21S 08W 21BAC 01 | -- | -- | -- | -- | -- | 10 | -- | 20 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

RICE COUNTY--Continued

| LOCAL IDENT-I-FIER | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 19S 06W 29CCD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 19S 09W 31DAB 01 | <0.5 | 3 | 10 | 10 | 0.5 | ND | ND | ND |
| 20S 08W 16AA 01 | 1.8 | <1 | <10 | 30 | 0.6 | ND | ND | ND |
| 21S 08W 21BAC 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 19S 06W 29CCD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 19S 09W 31DAB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 20S 08W 16AA 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 21S 08W 21BAC 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | LINDANE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 19S 06W 29CCD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 19S 09W 31DAB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 20S 08W 16AA 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 21S 08W 21BAC 01 | -- | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

RILEY COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 06E 21CDD 01 | 392525096460701 | -- | | 84-06-28 | 729 | 7.2 | 14.5 | 330 | -- |
| 09S 05E 01BCB 01 | 391805096494601 | 100.00 | 319CHSE | 84-06-27 | 763 | 7.2 | 14.5 | 330 | -- |
| 10S 07E 32DBD 01 | 390808096400901 | 45.00 | 112NWMN | 84-06-28 | 721 | 6.9 | 16.0 | 300 | -- |
| 11S 06E 12ADB 01 | 390644096423601 | -- | 110ALVM | 84-06-28 | 1040 | 6.8 | 14.5 | 530 | 24 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 06E 21CDD 01 | 94 | 23 | 16 | 10 | 0.4 | 1.0 | 385 | 25 | 17 |
| 09S 05E 01BCB 01 | 78 | 33 | 30 | 16 | 0.7 | 1.3 | 433 | 17 | 12 |
| 10S 07E 32DBD 01 | 100 | 13 | 29 | 17 | 0.8 | 3.6 | 380 | 39 | 5.8 |
| 11S 06E 12ADB 01 | 170 | 26 | 33 | 12 | 0.6 | 3.7 | 508 | 160 | 22 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 06E 21CDD 01 | 0.2 | <0.01 | 2.70 | 0.01 | -- | -- | -- | -- | -- |
| 09S 05E 01BCB 01 | 0.2 | <0.01 | 6.90 | 0.03 | -- | -- | -- | -- | -- |
| 10S 07E 32DBD 01 | 0.2 | <0.01 | 4.70 | 0.21 | 5 | 280 | <1 | <10 | 10 |
| 11S 06E 12ADB 01 | 0.3 | <0.01 | 0.76 | 0.07 | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 06E 21CDD 01 | 20 | -- | 10 | -- | -- | -- | -- | -- | -- |
| 09S 05E 01BCB 01 | 20 | -- | 10 | -- | -- | -- | -- | -- | -- |
| 10S 07E 32DBD 01 | 20 | <1 | 10 | <0.5 | <1 | <10 | 50 | 0.1 | ND |
| 11S 06E 12ADB 01 | 10 | -- | 10 | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METCLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 06E 21CDD 01 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 09S 05E 01BCB 01 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10S 07E 32DBD 01 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 11S 06E 12ADB 01 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | ENDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 06E 21CDD 01 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 09S 05E 01BCB 01 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10S 07E 32DBD 01 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 11S 06E 12ADB 01 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

[1]ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### ROOKS COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 07S 18W 24BAD 01 | 392606099164401 | 50.00 | 112ALVM | 84-07-27 | 1430 | 7.3 | 14.5 | 630 |
| 09S 18W 35CCD 01 | 391315099180901 | 70.00 | 121OGLL | 84-08-08 | 665 | 7.3 | 12.0 | 320 |
| 09S 19W 34BBD 01 | 391354099254901 | 70.00 | 121OGLL | 84-08-09 | 745 | 7.6 | 13.5 | 310 |

| LOCAL IDENT-I-FIER | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 07S 18W 24BAD 01 | 320 | 210 | 26 | 69 | 19 | 1 | 10 | 316 |
| 09S 18W 35CCD 01 | 61 | 110 | 11 | 23 | 13 | 0.6 | 4.3 | 259 |
| 09S 19W 34BBD 01 | 120 | 110 | 9.2 | 23 | 14 | 0.6 | 4.2 | 190 |

| LOCAL IDENT-I-FIER | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 07S 18W 24BAD 01 | 310 | 110 | 0.4 | 25 | 960 | 0.36 | 0.72 | 0.03 |
| 09S 18W 35CCD 01 | 32 | 37 | 0.3 | 36 | 410 | <0.01 | 1.60 | 0.03 |
| 09S 19W 34BBD 01 | 53 | 55 | 0.3 | 33 | 400 | 0.11 | 17.0 | <0.01 |

| LOCAL IDENT-I-FIER | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 07S 18W 24BAD 01 | 8200 | 1300 | -- | -- | -- | -- | -- | -- |
| 09S 18W 35CCD 01 | 10 | <10 | 1.4 | ND | ND | ND | ND | ND |
| 09S 19W 34BBD 01 | 20 | 10 | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|
| 07S 18W 24BAD 01 | -- | -- | -- | -- | -- | -- | -- |
| 09S 18W 35CCD 01 | ND | ND | ND | ND | ND | ND | ND |
| 09S 19W 34BBD 01 | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|
| 07S 18W 24BAD 01 | -- | -- | -- | -- | -- | -- | -- |
| 09S 18W 35CCD 01 | ND | ND | ND | ND | ND | ND | ND |
| 09S 19W 34BBD 01 | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### RUSH COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 16S 17W 16DCD 01 | 383916099121801 | 320.00 | 211DKOT | 84-08-26 | 2230 | 8.2 | 15.0 | 60 | -- |
| 18S 20W 20DCA 01 | 382802099332201 | 47.00 | 112PLSC | 84-07-10 | 1320 | 7.3 | 14.5 | 610 | 310 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 16S 17W 16DCD 01 | 12 | 7.2 | 460 | 93 | 27 | 8.2 | 231 | 200 | 440 |
| 18S 20W 20DCA 01 | 210 | 20 | 53 | 16 | 1 | 6.8 | 296 | 290 | 76 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 16S 17W 16DCD 01 | 3.7 | 7.2 | 1300 | 0.70 | 0.01 | <0.01 | 70 | 20 |
| 18S 20W 20DCA 01 | 0.4 | 37 | 870 | 0.18 | 4.40 | 0.06 | 30 | 10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### RUSSELL COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 11S 12W 07DDB 02 | 390623098412702 | 37.00 | 210DKOT | 84-08-07 | 2120 | 7.3 | 13.0 | 570 |
| 11S 14W 07CAA 01 | 390635098550901 | 45.00 | 112ALVM | 84-08-07 | 2280 | 7.1 | 12.5 | 1200 |

| LOCAL IDENT-I-FIER | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 11S 12W 07DDB 02 | 220 | 180 | 29 | 250 | 49 | 5 | 6.3 | 348 |
| 11S 14W 07CAA 01 | 840 | 400 | 48 | 90 | 14 | 1 | 11 | 352 |

| LOCAL IDENT-I-FIER | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 11S 12W 07DDB 02 | 320 | 280 | 0.3 | 35 | 1300 | 0.07 | 12.0 | 0.01 |
| 11S 14W 07CAA 01 | 890 | 78 | 0.4 | 29 | 1800 | 0.17 | 5.90 | 0.02 |

| LOCAL IDENT-I-FIER | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 11S 12W 07DDB 02 | 4 | 30 | <1 | <10 | <10 | 30 | <1 | <10 |
| 11S 14W 07CAA 01 | -- | -- | -- | -- | -- | 520 | -- | 380 |

| LOCAL IDENT-I-FIER | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 11S 12W 07DDB 02 | 0.8 | 12 | <10 | 30 | 6.3 | ND | ND | ND |
| 11S 14W 07CAA 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 11S 12W 07DDB 02 | ND | ND | ND | ND | ND | ND | ND | ND |
| 11S 14W 07CAA 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | LINDANE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 11S 12W 07DDB 02 | ND | ND | ND | ND | ND | ND | ND | ND |
| 11S 14W 07CAA 01 | -- | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### SALINE COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 14S 03W 25BAD 01 | 384836097361501 | 90.00 | 112ALVM | 84-09-01 | 947 | 7.3 | 15.5 | 610 | 92 |
| 15S 02W 26DDD 01 | 384242097300901 | 100.00 | 317SMNR | 84-09-01 | 464 | 7.2 | 15.0 | 180 | -- |
| 15S 05W 04ABB 01 | 384658097525001 | 80.00 | 211DKOT | 84-08-01 | 2120 | 7.0 | 17.0 | 720 | 320 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 14S 03W 25BAD 01 | 180 | 39 | 38 | 12 | 0.7 | 9.5 | 518 | 190 | 69 |
| 15S 02W 26DDD 01 | 50 | 14 | 26 | 24 | 0.9 | 1.1 | 193 | 50 | 19 |
| 15S 05W 04ABB 01 | 170 | 72 | 180 | 35 | 3 | 6.5 | 405 | 410 | 300 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 14S 03W 25BAD 01 | 0.3 | 33 | 950 | <0.01 | 2.60 | 0.17 | <10 | <10 |
| 15S 02W 26DDD 01 | 0.4 | 19 | 300 | <0.01 | 0.04 | <0.01 | 50 | 370 |
| 15S 05W 04ABB 01 | 0.6 | 16 | 1400 | 0.40 | <0.01 | <0.01 | 2400 | 470 |

### SCOTT COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|
| 18S 33W 24A 01 | 382845100543801 |  | 84-07-03 | 540 | 7.8 | 15.5 | 210 | 34 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|
| 18S 33W 24A 01 | 52 | 19 | 30 | 23 | 0.9 | 5.9 | 174 | 50 |

| LOCAL IDENT-I-FIER | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|
| 18S 33W 24A 01 | 28 | 2.1 | 0.50 | 3.00 | <0.01 | <10 | 10 |

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WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

SEDGWICK COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 25S 01W 07BAA 01 | 375348097281901 | 130.00 | 112PLSC | 84-08-29 | 632 | 7.1 | 16.0 | 250 |
| 25S 01W 30ABB 01 | 375111097281101 | -- | | 84-08-28 | 805 | 6.0 | 16.0 | 300 |
| 25S 01W 36ACB 01 | 375006097224601 | -- | | 84-08-28 | 710 | 7.1 | 16.0 | 370 |
| 26S 01E 17AAB 01 | 374743097201601 | -- | 112PLSC | 84-08-28 | 948 | 7.3 | 16.0 | 420 |
| 27S 02W 36BBB 01 | 373954097341101 | 54.00 | 112PLSC | 84-08-29 | 1020 | 7.2 | 16.0 | 440 |
| 29S 01E 05CAA 01 | 373325097203401 | -- | 112PLSC | 84-08-29 | 1150 | 7.2 | 15.0 | 410 |
| 29S 01E 08CBB 01 | 373233097205901 | 36.00 | 112PLSC | 84-08-29 | 735 | 7.1 | 16.0 | 280 |
| 29S 02W 23DDA 01 | 373031097295401 | 52.00 | 112PLSC | 84-08-29 | 768 | 7.0 | 16.0 | 290 |

| LOCAL IDENT- I- FIER | HARD- NESS, NONCAR- BONATE (MG/L CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 25S 01W 07BAA 01 | -- | 77 | 13 | 37 | 24 | 1 | 2.5 | 268 |
| 25S 01W 30ABB 01 | 58 | 96 | 14 | 48 | 26 | 1 | 2.8 | 239 |
| 25S 01W 36ACB 01 | 2 | 110 | 23 | 34 | 17 | 0.8 | 2.0 | 368 |
| 26S 01E 17AAB 01 | 13 | 120 | 30 | 49 | 20 | 1 | 2.3 | 410 |
| 27S 02W 36BBB 01 | 62 | 130 | 28 | 55 | 21 | 1 | 1.6 | 378 |
| 29S 01E 05CAA 01 | 40 | 130 | 21 | 86 | 31 | 2 | 3.5 | 371 |
| 29S 01E 08CBB 01 | -- | 94 | 19 | 50 | 28 | 1 | 1.8 | 317 |
| 29S 02W 23DDA 01 | 58 | 78 | 23 | 47 | 26 | 1 | 2.2 | 232 |

| LOCAL IDENT- I- FIER | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 25S 01W 07BAA 01 | 65 | 17 | -- | 18 | 390 | <0.01 | 6.10 | 0.03 |
| 25S 01W 30ABB 01 | 56 | 61 | 0.4 | 16 | 420 | 0.05 | 21.0 | <0.01 |
| 25S 01W 36ACB 01 | 120 | 17 | 0.4 | 18 | 550 | 0.12 | 1.50 | 0.11 |
| 26S 01E 17AAB 01 | 150 | 32 | 0.3 | 18 | 650 | 0.02 | 0.66 | 0.03 |
| 27S 02W 36BBB 01 | 190 | 40 | 0.3 | 22 | 690 | 0.21 | 3.50 | <0.01 |
| 29S 01E 05CAA 01 | 170 | 93 | 0.6 | 16 | 740 | 0.16 | 0.69 | <0.01 |
| 29S 01E 08CBB 01 | 48 | 25 | 0.2 | 22 | 640 | <0.01 | 13.0 | 0.11 |
| 29S 02W 23DDA 01 | 53 | 85 | 0.3 | 26 | 450 | <0.01 | 5.20 | 0.11 |

| LOCAL IDENT- I- FIER | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | CADMIUM DIS- SOLVED (UG/L AS CD) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 25S 01W 07BAA 01 | -- | -- | -- | -- | -- | 20 | -- | 50 |
| 25S 01W 30ABB 01 | -- | -- | -- | -- | -- | 20 | -- | <10 |
| 25S 01W 36ACB 01 | 13 | 160 | <1 | 10 | <10 | 250 | <1 | 90 |
| 26S 01E 17AAB 01 | -- | -- | -- | -- | -- | 20 | -- | 60 |
| 27S 02W 36BBB 01 | -- | -- | -- | -- | -- | 10 | -- | 10 |
| 29S 01E 05CAA 01 | -- | -- | -- | -- | -- | 210 | -- | 170 |
| 29S 01E 08CBB 01 | 5 | 110 | <1 | 10 | <10 | 10 | <1 | <10 |
| 29S 02W 23DDA 01 | 6 | 170 | <1 | 10 | 20 | 10 | <1 | <10 |

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## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### SEDGWICK COUNTY--Continued

| LOCAL IDENT-I-FIER | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-S^LVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 25S 01W 07BAA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25S 01W 30ABB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25S 01W 36ACB 01 | <0.5 | <1 | 10 | 10 | 5.1 | ND | ND | ND |
| 26S 01E 17AAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 27S 02W 36BBB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29S 01E 05CAA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29S 01E 08CBB 01 | <0.5 | <1 | <10 | 20 | 0.6 | ND | ND | ND |
| 29S 02W 23DDA 01 | <0.5 | <1 | <10 | 30 | 0.9 | ND | ND | ND |

| LOCAL IDENT-I-FIER | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (US/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (US/L) |
|---|---|---|---|---|---|---|---|---|
| 25S 01W 07BAA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25S 01W 30ABB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25S 01W 36ACB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 26S 01E 17AAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 27S 02W 36BBB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29S 01E 05CAA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29S 01E 08CBB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 29S 02W 23DDA 01 | ND | ND | ND | ND | ND | ND | ND | ND |

| LOCAL IDENT-I-FIER | LINDANE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 25S 01W 07BAA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25S 01W 30ABB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25S 01W 36ACB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 26S 01E 17AAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 27S 02W 36BBB 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29S 01E 05CAA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29S 01E 08CBB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 29S 02W 23DDA 01 | ND | ND | ND | ND | ND | ND | ND | ND |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### SEWARD COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | HARD- NESS, NONCAR- BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 31S 32W 03DAD 01 | 372239100464501 | 612.00 | 121OGLL | 84-06-28 | 650 | 7.5 | 16.5 | 250 | 61 |
| 34S 33W 32AA 03 | 370310100552803 | 365.00 | | 84-07-02 | 560 | 7.8 | 17.0 | 230 | 46 |

| LOCAL IDENT- I- FIER | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 31S 32W 03DAD 01 | 69 | 19 | 36 | 23 | 1 | 4.3 | 190 | 86 | 27 |
| 34S 33W 32AA 03 | 60 | 20 | 30 | 22 | 0.9 | 4.2 | 186 | 64 | 14 |

| LOCAL IDENT- I- FIER | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 31S 32W 03DAD 01 | 0.8 | 24 | 380 | 0.33 | 5.80 | 0.01 | <10 | <10 |
| 34S 33W 32AA 03 | 0.3 | 25 | 330 | 0.34 | 3.70 | <0.01 | <10 | <10 |

### SHAWNEE COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|
| 11S 15E 13BBC 01 | 390551095421601 | 112NWMN | 84-07-05 | 618 | 6.7 | 13.5 | 320 | 110 |

| LOCAL IDENT- I- FIER | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|
| 11S 15E 13BBC 01 | 12 | 16 | 10 | 0.4 | 2.9 | 332 | 64 |

| LOCAL IDENT- I- FIER | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|
| 11S 15E 13BBC 01 | 15 | 0.2 | <0.01 | 0.32 | 0.02 | 1800 | 820 |

## SHERIDAN COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 08S 28W 09ABC 01 | 392235100270201 | 206.00 | 121OGLL | 84-07-05 | 515 | 7.6 | 15.5 | 260 | 49 |
| 08S 28W 15BBA 01 | 392149100262001 | -- | 121OGLL | 84-07-05 | 495 | 7.6 | 15.0 | 210 | 23 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 08S 28W 09ABC 01 | 68 | 22 | 21 | 14 | 0.6 | 7.6 | 211 | 52 | 19 |
| 08S 28W 15BBA 01 | 54 | 18 | 21 | 17 | 0.7 | 6.9 | 136 | 31 | 16 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 08S 28W 09ABC 01 | 1.2 | 58 | 380 | 0.45 | 5.30 | <0.01 | 20 | <10 |
| 08S 28W 15BBA 01 | 1.2 | 57 | 320 | 0.46 | 3.00 | <0.01 | 10 | 10 |

## SHERMAN COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|
| 08S 39W 19DCA 01 | 392021101424701 | 121OGLL | 84-08-07 | 430 | 8.0 | 15.5 | 140 | 34 |
| 08S 42W 20CAC 01 | 392026102020701 | 121OGLL | 84-08-07 | 405 | 7.6 | 15.0 | 140 | 34 |

| LOCAL IDENT-I-FIER | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 08S 39W 19DCA 01 | 13 | 32 | 33 | 1 | 4.3 | 166 | 24 | 6.6 |
| 08S 42W 20CAC 01 | 13 | 31 | 32 | 1 | 4.3 | 146 | 29 | 9.6 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 08S 39W 19DCA 01 | 1.5 | 52 | 270 | <0.01 | 3.70 | <0.01 | 10 | <10 |
| 08S 42W 20CAC 01 | 1.5 | 50 | 260 | <0.01 | 4.10 | 0.02 | 30 | 10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### SMITH COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 03S 15W 20DCC 01 | 394613099021301 | 60.00 | 211CLRD | 84-08-01 | 875 | 7.0 | 14.5 | 400 |

| LOCAL IDENT-I-FIER | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATI | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 03S 15W 20DCC 01 | 140 | 130 | 19 | 29 | 13 | 0.7 | 6.6 | 267 |

| LOCAL IDENT-I-FIER | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 03S 15W 20DCC 01 | 80 | 49 | 0.3 | 42 | 520 | 0.11 | 10.0 | 0.02 |

| LOCAL IDENT-I-FIER | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 03S 15W 20DCC 01 | 4 | 120 | <1 | <10 | 10 | <10 | <1 | 10 |

| LOCAL IDENT-I-FIER | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 03S 15W 20DCC 01 | <0.5 | 20 | <10 | 40 | 1.2 | ND | ND | ND |

| LOCAL IDENT-I-FIER | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 03S 15W 20DCC 01 | ND | ND | ND | ND | ND | ND | ND | ND |

| LOCAL IDENT-I-FIER | LINDANE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 03S 15W 20DCC 01 | ND | ND | ND | ND | ND | ND | ND | ND |

ND Not detected.

BEST COPY AVAILABLE

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

STAFFORD COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 23S 13W 33BDB 01 | 380028098453601 | 80.00 | 112MEDE | 84-08-22 | 605 | 7.4 | 15.0 | 230 |
| 24S 15W 15CDA 01 | 375727098573201 | 79.00 | 112MEDE | 84-08-21 | 435 | 7.8 | 19.0 | 180 |

| LOCAL IDENT- I- FIER | HARD- NESS, NONCAR- BONATE (MG/L CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 23S 13W 33BDB 01 | 8 | 71 | 12 | 47 | 31 | 1 | 3.2 | 219 |
| 24S 15W 15CDA 01 | -- | 62 | 5.0 | 25 | 23 | 0.9 | 4.0 | 156 |

| LOCAL IDENT- I- FIER | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 23S 13W 33BDB 01 | 37 | 35 | 0.4 | 24 | 360 | 0.03 | 5.00 | 0.05 |
| 24S 15W 15CDA 01 | 23 | 15 | 0.5 | 15 | 260 | 0.05 | 1.50 | 0.01 |

| LOCAL IDENT- I- FIER | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | CADMIUM DIS- SOLVED (UG/L AS CD) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 23S 13W 33BDB 01 | -- | -- | -- | -- | -- | <10 | -- | <10 |
| 24S 15W 15CDA 01 | 23 | 210 | <1 | <10 | <10 | 30 | <1 | 20 |

| LOCAL IDENT- I- FIER | MERCURY DIS- SOLVED (UG/L AS HG) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | ZINC, DIS- SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA- CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA- ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 23S 13W 33BDB 01 | -- | -- | -- | -- | 0.9 | ND | ND | ND |
| 24S 15W 15CDA 01 | <0.5 | 4 | <10 | 10 | 0.6 | ND | ND | ND |

| LOCAL IDENT- I- FIER | CHLOR- DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI- ELDRIN TOTAL (UG/L) | METOLA- CHLOR IN WHOLE WATER (UG/L) | PROPA- CHLOR IN WHOLE WATER (UG/L) | METRI- BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 23S 13W 33BDB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 24S 15W 15CDA 01 | ND | ND | ND | ND | ND | ND | ND | ND |

| LOCAL IDENT- I- FIER | LINDANE TOTAL (UG/L) | METH- OXY- CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX- APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 23S 13W 33BDB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 24S 15W 15CDA 01 | ND | ND | ND | ND | ND | ND | ND | ND |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### STANTON COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 28S 41W 36DB 01 | 373403101450201 | -- | | 84-06-29 | 590 | 7.6 | 17.0 | 230 | 100 |
| 30S 39W 23BBB 01 | 372543101333801 | 40.00 | 121OGLL | 84-06-29 | 640 | 7.6 | 16.0 | 250 | 100 |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 28S 41W 36DB 01 | 62 | 19 | 34 | 24 | 1 | 4.3 | 130 | 120 | 20 |
| 30S 39W 23BBB 01 | 64 | 23 | 35 | 23 | 1 | 3.6 | 154 | 110 | 36 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 28S 41W 36DB 01 | 0.9 | 18 | 360 | 0.33 | 2.90 | <0.01 | 30 | <10 |
| 30S 39W 23BBB 01 | 1.3 | 20 | 390 | 0.42 | 3.90 | <0.01 | 10 | <10 |

### STEVENS COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 33S 37W 16AC 02 | 371045101204002 | | 84-07-02 | 780 | 7.7 | 17.0 | 310 | 120 | 74 |

| LOCAL IDENT-I-FIER | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 33S 37W 16AC 02 | 30 | 41 | 22 | 1 | 4.1 | 186 | 180 | 23 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 33S 37W 16AC 02 | 0.4 | 28 | 490 | 0.29 | 4.10 | <0.01 | 10 | <10 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

SUMNER COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 30S 02E 06CAB 01 | 372810097151101 | 44.00 | | 84-08-16 | 1350 | 7.5 | 15.5 | 330 |
| 31S 01E 04BDC 01 | 372307097192901 | 47.00 | 310WLNG | 84-08-16 | 1390 | 7.5 | 17.0 | 470 |
| 31S 02E 02BBB 02 | 372325097110702 | 70.00 | 310WLNG | 84-08-16 | 654 | 7.4 | 20.0 | 290 |
| 31S 03W 05ACA 01 | 372304097395401 | -- | 112NBRK | 84-08-15 | 242 | 7.2 | 14.0 | 79 |
| 32S 02W 06BDD 01 | 371743097343701 | 0.0 | | 84-08-15 | 1550 | 7.7 | 16.5 | 540 |
| 33S 02E 06BBA 01 | 371300097151201 | 44.00 | 310WLNG | 84-08-16 | 2470 | 7.6 | 24.0 | 850 |
| 34S 02W 21DAB 01 | 370432097315201 | 40.00 | | 84-08-15 | 652 | 7.8 | 15.5 | 280 |

| LOCAL IDENT- I- FIER | HARD- NESS, NONCAR- BONATE (MG/L CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|
| 30S 02E 06CAB 01 | 60 | 100 | 19 | 140 | 48 | 4 | 4.0 | 268 |
| 31S 01E 04BDC 01 | 85 | 140 | 29 | 110 | 34 | 2 | 2.2 | 394 |
| 31S 02E 02BBB 02 | 47 | 95 | 13 | 24 | 15 | 0.6 | 3.9 | 244 |
| 31S 03W 05ACA 01 | 45 | 23 | 5.2 | 16 | 30 | 0.6 | 0.6 | 34 |
| 32S 02W 06BDD 01 | 220 | 140 | 47 | 100 | 29 | 2 | 2.1 | 322 |
| 33S 02E 06BBA 01 | 510 | 200 | 86 | 200 | 34 | 3 | 3.3 | 346 |
| 34S 02W 21DAB 01 | -- | 76 | 22 | 38 | 23 | 1 | 2.1 | 303 |

| LOCAL IDENT- I- FIER | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|
| 30S 02E 06CAB 01 | 140 | 200 | 0.5 | 16 | 780 | 0.06 | 0.34 | 0.11 |
| 31S 01E 04BDC 01 | 65 | 220 | 0.2 | 18 | 820 | <0.01 | 0.47 | 0.11 |
| 31S 02E 02BBB 02 | 92 | 17 | 0.2 | 19 | 410 | 0.03 | 6.70 | 0.07 |
| 31S 03W 05ACA 01 | 20 | 7.4 | 0.2 | 28 | 120 | <0.01 | 14.0 | 0.06 |
| 32S 02W 06BDD 01 | 200 | 190 | 0.2 | 18 | 890 | 0.10 | 6.60 | <0.01 |
| 33S 02E 06BBA 01 | 410 | 380 | 0.3 | 12 | 1500 | <0.01 | 24.0 | <0.01 |
| 34S 02W 21DAB 01 | 64 | 39 | 0.3 | 16 | 440 | 0.56 | 1.80 | 0.05 |

| LOCAL IDENT- I- FIER | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | CADMIUM DIS- SOLVED (UG/L AS CD) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 30S 02E 06CAB 01 | 2 | 30 | <1 | 10 | 20 | <10 | <1 | 1000 |
| 31S 01E 04BDC 01 | 2 | 300 | <1 | <10 | <10 | <10 | <1 | 270 |
| 31S 02E 02BBB 02 | -- | -- | -- | -- | -- | 20 | -- | 10 |
| 31S 03W 05ACA 01 | 3 | 120 | <1 | <10 | <10 | <10 | <1 | <10 |
| 32S 02W 06BDD 01 | -- | -- | -- | -- | -- | 30 | -- | 10 |
| 33S 02E 06BBA 01 | -- | -- | -- | -- | -- | 20 | -- | 10 |
| 34S 02W 21DAB 01 | -- | -- | -- | -- | -- | 10 | -- | 680 |

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

SUMNER COUNTY--Continued

| LOCAL IDENT-I-FIER | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | ALA-CHLOR TOTAL RECOVER (UG/L) | ALDRIN, TOTAL (UG/L) | ATRA-ZINE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 30S 02E 06CAB 01 | <0.5 | 1 | <10 | 20 | 0.9 | ND | ND | ND |
| 31S 01E 04BDC 01 | <0.5 | 5 | <10 | 40 | 1.2 | ND | ND | ND |
| 31S 02E 02BBB 02 | -- | -- | -- | -- | -- | -- | -- | -- |
| 31S 03W 05ACA 01 | <0.5 | <1 | <10 | <10 | 0.3 | ND | ND | ND |
| 32S 02W 06BDD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 33S 02E 06BBA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 34S 02W 21DAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | CHLOR-DANE, TOTAL (UG/L) | O,P' DDT, TOTAL (UG/L) | P,P' DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | METOLA-CHLOR IN WHOLE WATER (UG/L) | PROPA-CHLOR IN WHOLE WATER (UG/L) | METRI-BUZIN IN WHOLE WATER (UG/L) | ENDRIN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 30S 02E 06CAB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 31S 01E 04BDC 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 31S 02E 02BBB 02 | -- | -- | -- | -- | -- | -- | -- | -- |
| 31S 03W 05ACA 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 32S 02W 06BDD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 33S 02E 06BBA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 34S 02W 21DAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |

| LOCAL IDENT-I-FIER | LINDANE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | PCB, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | DACTHAL TOTAL (UG/L) | 2,4-D, TOTAL (UG/L) | SILVEX, TOTAL (UG/L) | 2,4,5-T TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|
| 30S 02E 06CAB 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 31S 01E 04BDC 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 31S 02E 02BBB 02 | -- | -- | -- | -- | -- | -- | -- | -- |
| 31S 03W 05ACA 01 | ND | ND | ND | ND | ND | ND | ND | ND |
| 32S 02W 06BDD 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 33S 02E 06BBA 01 | -- | -- | -- | -- | -- | -- | -- | -- |
| 34S 02W 21DAB 01 | -- | -- | -- | -- | -- | -- | -- | -- |

ND Not detected.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### THOMAS COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 33W 31DBB 01 | 392401101023801 | 232.00 | 121OGLL | 84-07-06 | 490 | 8.1 | 15.0 | 200 | 5 |
| 07S 36W 15ACB 01 | 392652101192301 | 285.00 | 121OGLL | 84-07-06 | 410 | 7.6 | 16.0 | 160 | -- |

| LOCAL IDENT-I-FIER | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| 07S 33W 31DBB 01 | 55 | 16 | 22 | 19 | 0.7 | 6.4 | 195 | 20 | 13 |
| 07S 36W 15ACB 01 | 46 | 12 | 29 | 26 | 1 | 5.8 | 182 | 16 | 4.7 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 07S 33W 31DBB 01 | 1.5 | 55 | 310 | 0.45 | 4.50 | <0.01 | 20 | 10 |
| 07S 36W 15ACB 01 | 1.5 | 58 | 280 | 0.49 | 2.90 | 0.01 | <10 | <10 |

### TREGO COUNTY

| LOCAL IDENT-I-FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO-LOGIC UNIT | DATE | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | PH (STAND-ARD UNITS) | TEMPER-ATURE (DEG C) | HARD-NESS (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 12S 22W 08BAB 01 | 390149099472801 | 118.00 | 121OGLL | 84-09-24 | 430 | 7.6 | 17.0 | 200 | 64 |

| LOCAL IDENT-I-FIER | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY FIELD (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 12S 22W 08BAB 01 | 10 | 14 | 13 | 0.4 | 4.5 | 215 | 13 | 8.9 |

| LOCAL IDENT-I-FIER | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| 12S 22W 08BAB 01 | 0.4 | 48 | 290 | 0.35 | 1.20 | <0.01 | 10 | <10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### WASHINGTON COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| 02S 03E 32ABB 01 | 395029097065301 | 120.00 | 211DKOT | 84-06-26 | 402 | 6.5 | 13.5 | 110 | 34 |
| 04S 05E 09CAA 03 | 394305096520903 | -- | | 84-06-25 | 822 | 7.2 | 14.5 | 380 | 94 |
| 05S 02E 12CBA 01 | 393754097093201 | 80.00 | 211DKOT | 84-06-26 | 302 | 6.5 | 14.5 | 76 | 25 |

| LOCAL IDENT- I- FIER | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|
| 02S 03E 32ABB 01 | 5.8 | 26 | 34 | 1 | 2.3 | 151 | 26 | 5.2 |
| 04S 05E 09CAA 03 | 35 | 27 | 13 | 0.6 | 1.8 | 452 | 41 | 14 |
| 05S 02E 12CBA 01 | 3.5 | 30 | 46 | 2 | 1.4 | 103 | 20 | 11 |

| LOCAL IDENT- I- FIER | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | CADMIUM DIS- SOLVED (UG/L AS CD) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) |
|---|---|---|---|---|---|---|---|---|
| 02S 03E 32ABB 01 | 0.2 | 0.09 | 2.90 | 0.08 | 3 | 100 | <1 | <10 |
| 04S 05E 09CAA 03 | 0.2 | 0.01 | 9.80 | 0.02 | 3 | 210 | <1 | <10 |
| 05S 02E 12CBA 01 | 0.2 | <0.01 | 6.00 | 0.01 | -- | -- | -- | -- |

| LOCAL IDENT- I- FIER | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) | MERCURY DIS- SOLVED (UG/L AS HG) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | ZINC, DIS- SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|
| 02S 03E 32ABB 01 | 10 | 10 | <1 | <10 | <0.5 | 1 | <10 | 20 |
| 04S 05E 09CAA 03 | 10 | 10 | <1 | 10 | <0.5 | 2 | <10 | 30 |
| 05S 02E 12CBA 01 | -- | 10 | -- | 10 | -- | -- | -- | -- |

### WICHITA COUNTY

| LOCAL IDENT- I- FIER | STATION NUMBER | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | HARD- NESS, NONCAR- BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|
| 18S 37W 13CAC 01 | 382905101211101 | | 84-07-03 | 600 | 8.2 | 15.5 | 230 | 87 |

| LOCAL IDENT- I- FIER | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|
| 18S 37W 13CAC 01 | 62 | 19 | 20 | 15 | 0.6 | 4.5 | 146 | 58 |

| LOCAL IDENT- I- FIER | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|
| 18S 37W 13CAC 01 | 39 | 1.0 | 0.45 | 5.00 | <0.01 | <20 | 10 |

## WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

### WYANDOTTE COUNTY

| LOCAL IDENT- I- FIER | | STATION NUMBER | DEPTH OF WELL, TOTAL (FEET) | GEO- LOGIC UNIT | DATE | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | HARD- NESS (MG/L AS CACO3) | HARD- NESS, NONCAR- BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|---|
| 10S 25E 27DBD 01 | | 390852094382301 | -- | | 84-07-03 | 833 | 7.1 | 14.0 | 340 | -- |
| 11S 23E 28CCA 01 | | 390332094515901 | -- | 110ALVM | 84-06-01 | 882 | 7.2 | 14.5 | 350 | 51 |
| 11S 25E 20ABA 05 | PROCTOR | 390503094393505 | 97.00 | 110ALVM | 84-07-03 | 1500 | 6.9 | 14.0 | 620 | 72 |

| LOCAL IDENT- I- FIER | | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|---|
| 10S 25E 27DBD 01 | | 100 | 22 | 49 | 24 | 1 | 5.3 | 342 | 130 | 20 |
| 11S 23E 28CCA 01 | | 110 | 18 | 44 | 21 | 1 | 5.3 | 258 | 140 | 52 |
| 11S 25E 20ABA 05 | PROCTOR | 210 | 23 | 86 | 23 | 2 | 8.7 | 547 | 190 | 120 |

| LOCAL IDENT- I- FIER | | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | CADMIUM DIS- SOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|---|
| 10S 25E 27DBD 01 | | 0.3 | -- | -- | 0.14 | 0.01 | <0.01 | -- | -- | -- |
| 11S 23E 28CCA 01 | | 0.2 | 12 | 540 | 0.18 | 1.20 | <0.01 | -- | -- | -- |
| 11S 25E 20ABA 05 | PROCTOR | 0.2 | -- | -- | 0.95 | <0.01 | <0.01 | 4 | 90 | <1 |

| LOCAL IDENT- I- FIER | | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) | MERCURY DIS- SOLVED (UG/L AS HG) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | ZINC, DIS- SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| 10S 25E 27DBD 01 | | -- | -- | 760 | -- | 420 | -- | -- | -- | -- |
| 11S 23E 28CCA 01 | | -- | -- | <10 | -- | 380 | -- | -- | -- | -- |
| 11S 25E 20ABA 05 | PROCTOR | <10 | <10 | 830 | <1 | 1800 | <0.5 | 3 | 10 | <10 |

## KANSAS RIVER BASIN

### 373903094475300 FARLINGTON STATE FISH HATCHERY, KS
(National trends network station)

LOCATION.--Lat 37 deg 39 min 03 sec, long 94 deg 47 min 53 sec, in NW1/4 NW1/4 SE1/4 sec.32, T.27 S., R.24 E., Crawford County, Hydrologic Unit 10290104, 3 mi northwest of Farlington, and 0.5 mi northwest of Farlington Lake.

PERIOD OF RECORD.--March to September 1984.

REMARKS.--Chemical analyses of rainfall collected in wet-dry automatic sampler. Data collected in cooperation with Kansas State Park and Resources Authority. Chemical analyses from National Atmospheric Deposition Program, National Trends Network Analytical Laboratory.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | PRECIP-ITATION TOTAL INCHES/ WEEK | SAMPLE SIZE (ML) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) | PH (STAND-ARD UNITS) | PH LAB (STAND-ARD UNITS) | HARD-NESS (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) |
|---|---|---|---|---|---|---|---|---|---|
| MAR 27-<br>APR 03 | 0.65 | 930 | 27 | 32 | -- | 6.2 | 3 | 1.2 | 0.14 |
| APR<br>03-11 | 1.5 | 2800 | 21 | 14 | -- | 4.7 | 1 | 0.18 | 0.02 |
| APR<br>11-17 | 0.42 | 700 | 11 | 12 | 6.3 | 6.3 | 2 | 0.85 | 0.06 |
| APR<br>17-24 | 1.7 | 3000 | 18 | 18 | 4.5 | 4.8 | 2 | 0.66 | 0.06 |
| APR 24-<br>MAY 01 | 0.83 | 1600 | 5 | 15 | 6.5 | 6.5 | 3 | 1.1 | 0.08 |
| MAY<br>01-08 | 0.64 | 1200 | 14 | 14 | 5.4 | 5.3 | 3 | 0.96 | 0.13 |
| MAY<br>08-15 | 0.05 | 63 | -- | 44 | -- | 6.6 | 7 | 2.4 | 0.31 |
| MAY<br>15-22 | 0.5 | 860 | 7 | 7 | 5.2 | 5.4 | 1 | 0.16 | 0.03 |
| MAY<br>22-29 | 1.1 | 1900 | 96 | 15 | 4.6 | 4.7 | 1 | 0.33 | 0.04 |
| MAY 29-<br>JUN 05 | 0.12 | 210 | 37 | 24 | 4.8 | 6.1 | 4 | 1.5 | 0.16 |
| JUN<br>05-12 | 2.8 | 5000 | 9 | 7 | 5.1 | 5.3 | 0 | 0.12 | 0.02 |
| JUN<br>12-19 | 0.07 | 58 | -- | 26 | -- | 6.0 | 6 | 2.2 | 0.22 |
| JUN<br>19-26 | 1.7 | 3100 | 35 | 10 | 5.3 | 5.4 | 2 | 0.65 | 0.05 |
| JUN 26-<br>JUL 03 | 0.4 | 900 | 17 | 13 | 5.0 | 5.4 | 2 | 0.75 | 0.07 |
| JUL<br>03-10 | 0.8 | 1500 | 10 | 11 | 6.0 | 6.0 | 2 | 0.67 | 0.06 |

| DATE | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) | PHOS-PHATE, DIS-SOLVED (MG/L AS PO4) |
|---|---|---|---|---|---|---|---|---|---|
| MAR 27-<br>APR 03 | 0.25 | 11 | 0.1 | 0.88 | 6.3 | 0.55 | 3.7 | 1.7 | 0.12 |
| APR<br>03-11 | 0.05 | 16 | 0 | 0.03 | 1.4 | 0.09 | 1.2 | 0.31 | <0.0 |
| APR<br>11-17 | 0.13 | 10 | 0 | 0.11 | 1.7 | 0.18 | 1.9 | 0.64 | <0.0 |
| APR<br>17-24 | 0.2 | 18 | 0.1 | 0.08 | 2.9 | 0.32 | 1.5 | 0.52 | 0.01 |
| APR 24-<br>MAY 01 | 0.28 | 15 | 0.1 | 0.16 | 1.8 | 0.38 | 1.0 | 0.54 | 0.01 |
| MAY<br>01-08 | 0.18 | 11 | 0 | 0.09 | 2.6 | 0.27 | 1.8 | 0.61 | <0.0 |
| MAY<br>08-15 | 0.7 | 16 | 0.1 | 0.49 | 3.3 | 1.2 | 3.5 | 2.4 | <0.0 |
| MAY<br>15-22 | 0.08 | 22 | 0 | 0.06 | 0.9 | 0.15 | 0.79 | 0.28 | <0.0 |
| MAY<br>22-29 | 0.09 | 14 | 0 | 0.06 | 1.9 | 0.16 | 1.1 | 0.3 | <0.0 |
| MAY 29-<br>JUN 05 | 0.74 | 23 | 0.2 | 0.7 | 3.4 | 1.3 | 3.2 | 0.73 | <0.0 |
| JUN<br>05-12 | 0.11 | 34 | 0.1 | 0.05 | 0.8 | 0.15 | 0.51 | 0.17 | <0.0 |
| JUN<br>12-19 | 0.48 | 14 | 0.1 | 0.2 | 3.5 | 0.93 | 4.6 | 0.69 | <0.0 |
| JUN<br>19-26 | 0.15 | 14 | 0 | 0.06 | 1.3 | 0.23 | 2.1 | 0.33 | <0.0 |
| JUN 26-<br>JUL 03 | 0.11 | 9 | 0 | 0.15 | 1.9 | 0.25 | 2.0 | 0.54 | 0.0 |
| JUL<br>03-10 | 0.17 | 15 | 0.1 | 0.11 | 1.3 | 0.31 | 2.1 | 0.54 | <0.0 |

KANSAS RIVER BASIN

373903094475300 FARLINGTON STATE FISH HATCHERY, KS--Continued
(National trends network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | PRECIP- ITATION TOTAL INCHES/ WEEK | SAMPLE SIZE (ML) | SPE- CIFIC CON- DUCT- ANCE (UMHOS) | SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS) | PH (STAND- ARD UNITS) | PH LAB (STAND- ARD UNITS) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) |
|---|---|---|---|---|---|---|---|---|---|
| JUL 10-17 | 0.23 | 360 | 84 | 21 | 5.4 | 6.1 | 4 | 1.6 | 0.13 |
| JUL 17-24 | -- | -- | -- | 13 | -- | 7.0 | 6 | 2.2 | 0.09 |
| JUL 24-31 | -- | -- | -- | 17 | -- | 6.8 | 7 | 2.5 | 0.11 |
| JUL 31-AUG 07 | 0.05 | 130 | -- | 16 | -- | 6.4 | 4 | 1.2 | 0.26 |
| AUG 07-14 | 0.05 | 160 | 30 | 26 | 6.3 | 6.4 | 7 | 2.6 | 0.15 |
| AUG 14-21 | -- | 3 | -- | -- | -- | -- | -- | -- | -- |
| AUG 21-28 | 0.6 | 1100 | 84 | 18 | 5.1 | 5.4 | 3 | 1.1 | 0.07 |
| AUG 28-SEP 04 | 0.2 | 360 | 24 | 15 | 4.9 | 6.0 | 3 | 1.1 | 0.09 |
| SEP 04-11 | 3.5 | 5900 | 12 | 12 | 4.9 | 4.9 | 1 | 0.4 | 0.04 |
| SEP 11-18 | 0.1 | 220 | 26 | 32 | 5.9 | 6.6 | 6 | 2.1 | 0.23 |
| SEP 18-25 | 0.4 | 63 | -- | 12 | -- | 5.8 | 3 | 0.75 | 0.23 |
| SEP 25-OCT 02 | 0.3 | 510 | 12 | 11 | 4.7 | 5.8 | 2 | 0.68 | 0.1 |

| DATE | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4) | PHOS- PHATE, DIS- SOLVED (MG/L AS PO4) |
|---|---|---|---|---|---|---|---|---|---|
| JUL 10-17 | 0.29 | 11 | 0.1 | 0.39 | 2.9 | 0.71 | 3.4 | 0.62 | <0.0 |
| JUL 17-24 | 0.18 | 6 | 0 | 0.19 | 0.4 | 0.21 | 0.05 | <0.02 | <0.0 |
| JUL 24-31 | 0.27 | 8 | 0 | 0.22 | 0.5 | 0.42 | <0.02 | <0.02 | <0.0 |
| JUL 31-AUG 07 | 0.69 | 26 | 0.2 | 0.18 | 1.9 | 0.48 | 2.3 | 0.27 | <0.0 |
| AUG 07-14 | 0.96 | 22 | 0.2 | 0.44 | 1.8 | 1.3 | 3.4 | 0.51 | 0.0 |
| AUG 14-21 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 21-28 | 0.35 | 19 | 0.1 | 0.32 | 2.8 | 0.56 | 2.8 | 0.77 | <0.0 |
| AUG 28-SEP 04 | 0.35 | 15 | 0.1 | 0.99 | 1.6 | 1.1 | 2.0 | 0.05 | <0.0 |
| SEP 04-11 | 0.12 | 18 | 0 | 0.03 | 1.6 | 0.17 | 1.0 | 0.31 | <0.0 |
| SEP 11-18 | 0.68 | 18 | 0.1 | 0.25 | 4.3 | 1.1 | 4.4 | 1.4 | <0.0 |
| SEP 18-25 | 0.59 | 30 | 0.2 | 0.09 | 1.9 | 0.52 | 1.3 | 0.03 | <0.0 |
| SEP 25-OCT 02 | 0.27 | 20 | 0.1 | 0.16 | 2.1 | 0.29 | 1.2 | 0.28 | <0.0 |

## KANSAS RIVER BASIN

### 384021100545400 SCOTT LAKE STATE PARK, KS
(National trends network station)

LOCATION.--Lat 38 deg 40 min 21 sec, long 100 deg 54 min 54 sec, in SW1/4 SW1/4 SE1/4 sec.12, T.16 S., R.33 W., Scott County, Hydrologic Unit 10260006, 14 mi north of Scott City, and 1 mi south of Scott Lake.

PERIOD OF RECORD.--March to September 1984.

REMARKS.--Chemical analyses of rainfall collected in wet-dry automatic sampler. Data collected in cooperation with Kansas State Park and Resources Authority. Chemical analyses from National Atmospheric Deposition Program, National Trends Network Analytical Laboratory.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | PRECIP-ITATION TOTAL INCHES/ WEEK | SAMPLE SIZE (ML) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) | PH (STAND-ARD UNITS) | PH LAB (STAND-ARD UNITS) | HARD-NESS (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) |
|---|---|---|---|---|---|---|---|---|---|
| MAR 27-<br>APR 03 | E2.1 | -- | 10 | 3 | -- | 6.3 | 1 | 0.17 | 0.14 |
| APR<br>03-10 | E0.55 | E1100 | 12 | -- | 5.0 | -- | -- | -- | -- |
| APR<br>10-17 | 0.1 | 46 | -- | -- | -- | 5.1 | -- | -- | -- |
| APR 24-<br>MAY 01 | E1.3 | E2200 | 9 | 6 | 5.6 | 6.0 | 2 | 0.58 | 0.07 |
| MAY<br>01-08 | E0.53 | E970 | 9 | -- | 5.9 | -- | -- | -- | -- |
| MAY<br>08-15 | -- | -- | -- | 2 | -- | 5.6 | 0 | 0.07 | 0.02 |
| MAY<br>15-22 | 1.0 | 1800 | 6 | 6 | 5.9 | 6.0 | 1 | 0.21 | 0.03 |
| MAY<br>22-29 | -- | 6 | -- | -- | -- | -- | -- | -- | -- |
| MAY 29-<br>JUN 05 | 0.28 | 490 | 16 | 18 | 5.7 | 6.4 | 3 | 1.0 | 0.13 |
| JUN<br>05-12 | 0.12 | 170 | -- | 21 | -- | 6.6 | 6 | 2.0 | 0.15 |
| JUN<br>12-19 | 0.81 | 1400 | 8 | 8 | 6.5 | 5.5 | 1 | 0.5 | 0.05 |
| JUN<br>19-26 | 0.05 | 80 | -- | 33 | -- | 6.9 | 8 | 2.8 | 0.3 |
| JUN 26-<br>JUL 03 | 1.6 | 2700 | 14 | 12 | 5.7 | 6.3 | 1 | 0.39 | 0.03 |
| JUL<br>03-10 | 0.2 | 330 | 11 | 12 | 5.9 | 6.3 | 2 | 0.47 | 0.12 |
| JUL<br>10-17 | 0.11 | 140 | -- | 32 | -- | 6.6 | 6 | 1.9 | 0.23 |

| DATE | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) | PHOS-PHATE, DIS-SOLVED (MG/L AS PO4) |
|---|---|---|---|---|---|---|---|---|---|
| MAR 27-<br>APR 03 | 0.03 | 5 | 0 | 0.02 | 0.4 | 0.04 | <0.02 | 0.04 | <0.0 |
| APR<br>03-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR<br>10-17 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 24-<br>MAY 01 | 0.17 | 17 | 0.1 | 0.08 | 1.2 | 0.22 | 0.04 | <0.02 | <0.0 |
| MAY<br>01-08 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY<br>08-15 | 0.03 | 22 | 0 | 0.01 | <0.1 | 0.11 | 0.08 | <0.02 | <0.0 |
| MAY<br>15-22 | 0.05 | 14 | 0 | 0.02 | 0.8 | 0.1 | 0.99 | 0.5 | <0.0 |
| MAY<br>22-29 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY 29-<br>JUN 05 | 0.22 | 13 | 0.1 | 0.18 | 2.3 | 0.25 | 2.3 | 1.0 | <0.0 |
| JUN<br>05-12 | 0.3 | 10 | 0.1 | 0.23 | 2.7 | 0.67 | 2.3 | 0.66 | <0.0 |
| JUN<br>12-19 | 0.13 | 16 | 0 | 0.05 | 1.6 | 0.18 | 1.0 | 0.32 | 0.01 |
| JUN<br>19-26 | 0.38 | 8 | 0.1 | 0.67 | 3.4 | 0.39 | 3.9 | 1.5 | 0.01 |
| JUN 26-<br>JUL 03 | 0.04 | 6 | 0 | 0.09 | 1.6 | 0.19 | 1.6 | 1.1 | 0.0 |
| JUL<br>03-10 | 0.16 | 15 | 0.1 | 0.17 | 1.4 | 0.27 | 1.8 | 0.86 | <0.0 |
| JUL<br>10-17 | 0.28 | 9 | 0 | 0.45 | 2.9 | 0.49 | 6.1 | 1.5 | <0.0 |

E Estimated value.

KANSAS RIVER BASIN

394021100545400 SCOTT LAKE STATE PARK, KS--Continued
(National trends network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

| DATE | PRECIP-ITATION TOTAL INCHES/WEEK | SAMPLE SIZE (ML) | SPE-CIFIC CON-DUCT-ANCE (UMHOS) | SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) | PH (STAND-ARD UNITS) | PH LAB (STAND-ARD UNITS) | HARD-NESS (MG/L AS CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) |
|---|---|---|---|---|---|---|---|---|---|
| JUL 17-24 | 0.22 | 320 | -- | 27 | -- | 6.6 | 4 | 1.4 | 0.14 |
| JUL 24-31 | 0.52 | 870 | 21 | 15 | 5.5 | 5.4 | 2 | 0.63 | 0.06 |
| JUL 31- AUG 07 | 0.73 | 1200 | 17 | 17 | 5.4 | 6.4 | 2 | 0.67 | 0.05 |
| AUG 07-14 | 0.74 | 1100 | 12 | 12 | 6.4 | 6.3 | 2 | 0.62 | 0.04 |
| AUG 14-21 | 0.33 | 580 | 24 | 29 | 6.4 | 6.7 | 4 | 1.3 | 0.11 |
| AUG 21-28 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 28- SEP 04 | 0.07 | -- | -- | 90 | -- | 6.9 | 32 | 11 | 0.89 |
| SEP 04-11 | 0.11 | 200 | -- | 21 | -- | 6.6 | 5 | 1.6 | 0.19 |
| SEP 11-18 | 0.02 | 10 | -- | 57 | -- | 6.6 | 13 | 3.2 | 1.3 |
| SEP 18-25 | -- | -- | -- | 6 | -- | 6.3 | 1 | 0.28 | 0.1 |
| SEP 25- OCT 02 | 0.02 | 23 | -- | 26 | -- | 6.6 | 5 | 1.3 | 0.5 |

| DATE | SODIUM, DIS-SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) | PHOS-PHATE, DIS-SOLVED (MG/L AS PO4) |
|---|---|---|---|---|---|---|---|---|---|
| JUL 17-24 | 0.11 | 5 | 0 | 0.44 | 2.9 | 0.68 | 4.4 | 1.9 | <0.0 |
| JUL 24-31 | 0.05 | 5 | 0 | 0.14 | 2.3 | 0.14 | 2.5 | 0.51 | <0.0 |
| JUL 31- AUG 07 | 0.03 | 3 | 0 | 0.12 | 2.1 | 0.14 | 2.3 | 0.56 | <0.0 |
| AUG 07-14 | 0.04 | 4 | 0 | 0.08 | 0.9 | 0.11 | 1.5 | <0.02 | <0.0 |
| AUG 14-21 | 0.16 | 7 | 0 | 0.43 | 3.0 | 0.26 | 3.5 | 2.1 | 0.25 |
| AUG 21-28 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 28- SEP 04 | 0.55 | 3 | 0 | 2.4 | 6.2 | 1.1 | 12 | 1.1 | 0.45 |
| SEP 04-11 | 0.33 | 12 | 0.1 | 0.18 | 2.5 | 0.29 | 0.47 | <0.02 | <0.0 |
| SEP 11-18 | 3.1 | 33 | 0.4 | 0.51 | 5.5 | 1.9 | 6.2 | 0.76 | <0.02 |
| SEP 18-25 | 0.29 | 34 | 0.1 | 0.05 | 0.4 | 0.17 | <0.02 | <0.02 | <0.0 |
| SEP 25- OCT 02 | 1.3 | 33 | 0.3 | 0.31 | 2.3 | 1.2 | <0.07 | <0.07 | 0.04 |

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October 1, 1978

# FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

| Multiply inch-pound units | By | To obtain SI units |
|---|---|---|
| | *Length* | |
| inches (in) | $2.54\times10^{1}$ | millimeters (mm) |
| | $2.54\times10^{-2}$ | meters (m) |
| feet (ft) | $3.048\times10^{-1}$ | meters (m) |
| miles (mi) | $1.609\times10^{0}$ | kilometers (km) |
| | *Area* | |
| acres | $4.047\times10^{3}$ | square meters ($m^2$) |
| | $4.047\times10^{-1}$ | square hectometers ($hm^2$) |
| | $4.047\times10^{-3}$ | square kilometers ($km^2$) |
| square miles ($mi^2$) | $2.590\times10^{0}$ | square kilometers ($km^2$) |
| | *Volume* | |
| gallons (gal) | $3.785\times10^{0}$ | liters (L) |
| | $3.785\times10^{0}$ | cubic decimeters ($dm^3$) |
| | $3.785\times10^{-3}$ | cubic meters ($m^3$) |
| million gallons | $3.785\times10^{3}$ | cubic meters ($m^3$) |
| | $3.785\times10^{-3}$ | cubic hectometers ($hm^3$) |
| cubic feet ($ft^3$) | $2.832\times10^{1}$ | cubic decimeters ($dm^3$) |
| | $2.832\times10^{-2}$ | cubic meters ($m^3$) |
| cfs-days | $2.447\times10^{3}$ | cubic meters ($m^3$) |
| | $2.447\times10^{-3}$ | cubic hectometers ($hm^3$) |
| acre-feet (acre-ft) | $1.233\times10^{3}$ | cubic meters ($m^3$) |
| | $1.233\times10^{-3}$ | cubic hectometers ($hm^3$) |
| | $1.233\times10^{-6}$ | cubic kilometers ($km^3$) |
| | *Flow* | |
| cubic feet per second ($ft^3/s$) | $2.832\times10^{1}$ | liters per second (L/s) |
| | $2.832\times10^{1}$ | cubic decimeters per second ($dm^3/s$) |
| | $2.832\times10^{-2}$ | cubic meters per second ($m^3/s$) |
| gallons per minute (gal/min) | $6.309\times10^{-2}$ | liters per second (L/s) |
| | $6.309\times10^{-2}$ | cubic decimeters per second ($dm^3/s$) |
| | $6.309\times10^{-5}$ | cubic meters per second ($m^3/s$) |
| million gallons per day | $4.381\times10^{1}$ | cubic decimeters per second ($dm^3/s$) |
| | $4.381\times10^{-2}$ | cubic meters per second ($m^3/s$) |
| | *Mass* | |
| tons (short) | $9.072\times10^{-1}$ | megagrams (Mg) or metric tons |